receiving at least one information transmission at said video receiver station, said at least one

information transmission including video, generally applicable information and a control signal;

storing said generally applicable information and said control signal at said video receiver

station;

outputting said video at a video monitor;

selecting at least one receiver specific benefit datum to output from said generally applicable

information in accordance with said control signal; and

outputting said selected at least one receiver specific benefit datum in a time of specific

relevance during said outputting of said video in response to at least a second control signal, wherein

said outputting of said video and said outputting of said selected at least one receiver specific benefit

datum explain said benefit of said offer to said specific user of said video receiver station.

II.   REMARKS

Applicants have reviewed the Office action mailed September 6, 2002 and fully address

herein the following objections and rejection contained therein.

Sections II and III of the Office action recite a number of issues that are neither rejections of

nor objections to the claims of the instant application. Applicants address Sections II and III of the

Office action below, but note that the issues raised are not relevant to the patentablity of the claims

in this application. For this reason, Sections II and III of the Office action are improper and should

therefore be withdrawn in their entireties.

Section III of the Office action is followed by Sections IV-VI that assert the following

objections to and rejections of the pending claims and drawings.

In Section IV the Examiner objects to the drawings under 37 C.F.R. § 1.83(a).

In Section V.1, claims 2-5, 9-14, 16 and 18-21 were rejected under 35 U.S.C. § 112, first

paragraph, as containing new matter and/or subject matter which was not described in the

specification in such a way as to reasonably convey to one skilled in the relevant art that the

inventor(s), at the time the application was filed, had possession of the claimed invention.

5

In Section V.2, claims 2-5, 9-14, 16 and 18-21 were rejected under 35 U.S.C. § 112, first

paragraph, as containing subject matter which was not described in the specification in such a way as

to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to

make and/or use the invention.

In Section VI, claims 2-5, 9-14, 16 and 18-21 were rejected under 35 U.S.C. § 112, second

paragraph, as being indefinite.

In Section VII, claims 2-5, 9-14, 16 and 18-21 were rejected under 35 U.S.C. § 102(e) as

being anticipated by Campbell et al.; claims 5 and 18-21 were rejected under 35 U.S.C. § 102(e) as

being anticipated by Saeki et al.; and claim 18 was rejected under 35 U.S.C. § 102(e) as being

anticipated by Block et al.

Applicants reply herein to each ground of rejection presented in the Office action.

Applicants hereby request reconsideration and further examination of the instant application.

A.   Response To Sections II & III Of The Office Action

Sections II and III of the Office action discusses a list of 30 "Examples" of issues that have

been raised in some of applicants' copending applications. The Examiner alleges that in some cases

applicants have "handled and addressed" these issues inconsistently in different applications. The

Examiner states that the list of "Examples" will be maintained by the Patent Office "in an attempt to

ensure consistency in the way that these issues are handled between applications in the future."

Office action, p. 3.

Applicants respectfully submit that the "Examples" are simply irrelevant to the prosecution

of the instant application for a number of reasons. The Examiner in Section II has acknowledged

that the list of 30 Examples is not relevant to certain applications because applicants have not

asserted priority in those applications to the filing date of applicants' 1981 application:

> It is examiners position that after a series of interview, it has been
> mutually agreed upon that the instant application is entitled the earlier
> priority date of 9/11/87 based on the 07/096,096 application and not

6

the 11/3/81 date based on the 06/317,510 application. Therefore, the written description and the enablement under 112 1st paragraph should be limited to the 1987 specification only. Additionally, the remarks set forth in Paragraph III, items 1-30 [the "Examples"] of the instant office action are carried over from other office actions in similar cases and are presented herein because in the past there have been disagreements between the priority date that the applicants are entitled to. The examiner will withdraw paragraph III from subsequent actions in the instant case application if applicants confirm on record in the next communication that the instant application is entitled to only the 1987 priority date and the citations for claim support will be only provided for the 1987 specification.

The Examiner's position that he will withdraw the irrelevant 30 Examples only if "applicants confirm on record in the next communication that the instant application is entitled to only the 1987 priority date" is improper. Whether or not *a particular claim* is afforded the benefit of an earlier filing date under § 120 simply depends on whether the requirements of § 120 are met *for that claim*. A claim either is or is not entitled to an earlier filing date, and such a determination cannot be made without conducting the appropriate claim-by-claim analysis required by the controlling authorities. Of course, it is applicants' decision whether or not to invoke § 120 in order to overcome an intervening reference. In the instant application, applicants have *not* invoked § 120 to avoid the intervening references. Moreover, applicants have demonstrated specification support below only with respect to the 1987 specification. Accordingly, the 30 Examples should be withdrawn.

Applicants question the relevance of the 30 Examples, as well as applicants' need to respond to these Examples, because none of the examples forms the basis for any objection to or rejection of a pending claim. *See* 37 C.F.R. § 1.111 ("In order to be entitled to reconsideration or further examination, the applicant . . . must reply to every ground of objection and rejection in the prior Office action."). Further, none of the Examples even refers to any claims that are presently pending in the instant application. Accordingly, the 30 Examples simply have no bearing on the prosecution of the claims pending in the instant application, and are therefore improper.

Applicants further question the basis for including the 30 Examples in the instant application and applicants' need to respond to the Examples, because the vast majority of the Examples have appeared at least once before in other applications and because applicants have already responded to

7

the vast majority of the Examples on the record in their copending applications. For example, all 30

Examples appear in identical form in the 07/17/02 Office action received in application Ser. No.

08/470,571 ("the '571 Application"). Additionally, at least 20 of the current Examples previously

appeared in the 08/28/01 Office action in the '571 Application. Accordingly, applicants, in their

01/28/02 and 01/09/03 Responses filed in the '571 Application, have already fully responded on the

record to all of the 30 Examples listed in the instant application.

In addition to the identical "Examples" being repeated from other recent Office actions,

applicants note that many of the issues discussed in the 30 Examples have been raised by the

Examiner before in slightly different forms in applicants' various copending applications. In

addressing such issues, applicants have at all times strived to respond in a consistent manner in all of

applicants' copending applications. Accordingly, applicants believe that the Examiner is mistaken in

his assertion that applicants have "handled and addressed" the issues raised in the 30 Examples

"inconsistently."

The 30 Examples are not relevant to the instant application, and applicants respectfully

request that the Examples be withdrawn and that the Examiner acknowledge the lack of relevance of

the 30 Examples to the prosecution of the instant application. Notwithstanding applicants' position

regarding the lack of relevance of the 30 Examples to the prosecution of the instant case, applicants

provide the following responses[1] to the 30 Examples. Applicants reserve their right to further

address any of the 30 Examples if, for example, they are ever raised in the context of an actual

rejection or objection.

Examples 1-3

Examples 1-3 address various issues concerning applicants' ability to claim priority to their

1981 application and the proper test for demonstrating priority under 35 U.S.C. § 120. Because

---

[1]   More detailed responses to many of the Examples appear in, among other places, applicants' 01/28/02 Response, 05/06/02 Response to Interview Summary, and 01/09/03 Response filed in the '571 Application.

applicants have not asserted priority to their 1981 application for any of the pending claims in the instant application, Examples 1-3 are wholly irrelevant to the instant application.

In Example 1, the Examiner discusses prosecution of applicants' copending application Ser. No. 08/470,571. More specifically, the Examiner focuses on the need to first demonstrate written description support in applicants' 1987 specification when claiming priority under § 120. Applicants have not asserted priority under § 120 to the date of their 1981 application for any of the pending claims in the instant application, and applicants have identified detailed written description support in their 1987 specification for each and every pending claim in the instant application in Appendix B. Further, applicants respectfully disagree with the Examiner's characterization of their position regarding priority in their copending applications. Finally, in addition to being totally irrelevant to the instant application, applicants submit that the assertions made by the Examiner in Example 1 are improper in the absence of any priority claim made by applicants under 35 U.S.C. § 120 to their 1981 application for any claim in the instant application.

In Example 2, the Examiner takes issue with applicants' discussion and position regarding the proper test for demonstrating priority under § 120. Again, the Examiner refers to applicants' responses filed in the '571 Application. Although applicants continue to disagree with the Examiner's description and application of the legal test for demonstrating priority under § 120 (for the detailed reasons set forth by applicants, e.g., in their 01/09/03 Response in the '571 Application), the issue of priority under § 120 is simply not an issue in the instant application.

In Example 3, the Examiner further discusses applicants' ability to demonstrate priority under § 120 and their ability to support claims pending in the '571 Application using applicants' 1987 specification. Applicants believe that the issues raised in Example 3 are irrelevant to the instant application and submit that the Examiner has mischaracterized applicants' position regarding their ability to demonstrate written description support in both the 1987 and 1981 specifications for the claims pending in the '571 Application and other applications in which applicants are asserting priority under § 120.

Applicants' positions with respect to the various issues related to applicants' ability to claim priority to the date of their 1981 specification and the proper legal test for demonstrating priority under § 120 has been discussed in detail in applicants' submissions in the '571 Application. Applicants will continue to provide the factual and legal bases that justify their claim of priority to their 1981 application in those copending applications where such claim is appropriate and necessary (i.e., if intervening art is applied and applicants elect to invoke § 120 to overcome such intervening art).

Example 4

In Example 4, the Examiner discusses a claim limitation (i.e., "locally generating" images) relevant to certain claims pending in applicants' '571 Application. Applicants respectfully disagree with the Examiner's assertion in Example 4 that Teletext decoders locally generate images for output or display in the same manner that is being claimed in certain ones of applicants' copending applications, and applicants have already addressed the issue of whether the prior art applied by the Examiner teaches local generation of images in the '571 Application. If the Examiner bases a rejection of or objection to any claim pending in the instant application on the issues found in Example 4, or asserts that the issues found in Example 4 are in any way relevant to the instant application, applicants will address any such assertions at the appropriate time.

Examples 5 and 27

In Examples 5 and 27, the Examiner discusses the "Teletext prior art" and the inventions disclosed in applicants' 1987 specification in the context of an Office action and a Response filed in the '571 Application. The Examiner asserts in Examples 5 and 27 that applicants' 1987 "packetized SPAM" structure represents little more than applicants' own version of a "conventional extended Teletext system." In Example 27, the Examiner further asserts that certain structures recited in some of applicants' claims pending in the '571 Application (namely, a receiver, a signal detector, a processor, and an output device) are also "found within a conventional CPU/MP/computer implemented Teletext" receiver. These examples are not discussed or applied in the context of any

10

of the claims pending in the instant application and the Examiner does not reject any of the pending claims based on the arguments made in Examples 5 and 27. If and when the Examiner makes rejections of specific pending claims on the basis of issues raised in Examples 5 and 27, applicants will further respond to such a rejection. Notwithstanding the lack of relevance of Examples 5 and 27 to this application, applicants strenuously disagree with the Examiner's disparaging assertions and characterization of the subject matter disclosed in applicants' 1987 specification. Finally, applicants note that they have previously addressed how applicants' claims differ from many "Teletext" prior art references in prior responses filed in copending applications.

Example 6

In Example 6, the Examiner discusses applicants' ability to obtain priority to their 1981 filing date for claiming "computer software." The Examiner discusses this issue with respect to arguments advanced in applicants' '571 Application related to applicants' prior use of the term "programming" in claims pending in the '571 Application. Applicants have fully addressed the issues raised in Example 6 in the '571 Application. The issues raised in Example 6, however, are not relevant to the instant application because applicants have not asserted priority under § 120 to the date of their 1981 application for any of the pending claims in the instant application. In fact, in Example 6, the Examiner acknowledges that applicants' 1987 specification does disclose the downloading of computer software. Notwithstanding the lack of relevance of Example 6 to this application, applicants disagree with the Examiner's position regarding applicants' ability to obtain priority to their 1981 filing date for claims that include the term "programming."

Example 7

In Example 7, the Examiner alleges that Teletext decoders found in the prior art are "signal processors" as the term "signal processor" is used within the context of applicants' claims pending in the '571 Application. Again, the issues raised in Example 7 are not discussed in the context of any claim currently pending in the instant application. Applicants do not understand the relevance of Example 7 to any of the claims currently pending in the instant application and no attempt is made to

11

apply the discussion in Example 7 to the instant claims. Notwithstanding the lack of relevance of Example 7 to this application, applicants respectfully disagree with the Examiner's assertions and characterization of Teletext decoders found in the prior art and the signal processor disclosed by applicants. Applicants submit that the signal processors disclosed in applicants' specifications perform functions that are not disclosed in the cited Teletext prior art references. Finally, applicants will address these issues if and when an actual rejection is made by the Examiner based on the issues raised in Example 7.

Example 8

In Example 8, the Examiner asserts that it is applicants' position that applicants' claimed/disclosed technology is not "correlated/analogous" to Teletext technology. The Examiner, however, fails to provide any details regarding his position that "conventional Teletext systems" generally are correlated or similar to applicants' claimed technology. Indeed, such generalized "correlations" or "analogies" are wholly irrelevant to the issue of whether or not applicants' claims are patentable. Applicants' position is that none of the specific references, related to Teletext or otherwise, alone or in combination, teach the methods and apparatus claimed by applicants. The Examiner further argues that applicants have previously indicated it is their belief that the scope of many of their pending claims encompasses the "Weather Star" system/receiver technology. First, the question of whether or not a particular system would be covered by a pending claim is wholly irrelevant to the examination of the instant claims, unless such system is prior art. The Examiner has not established that the Weather Star system is prior art. Second, although the Examiner vaguely refers to applicants' "pending amended claims," he makes no reference to a specific application *or a specific claim*. Due to the Examiner's broad treatment of these issues, applicants cannot respond in any meaningful manner to the issues raised in Example 8.

Example 9

In Example 9, the Examiner discusses an issue that arose in the prosecution of the '571 Application regarding whether "digital television signals/programming" was well known in the

12

relevant art at the time that applicants filed their specifications. In their 1/28/02 Response filed in the '571 Application, applicants fully addressed the Examiner's rejections under § 112, second paragraph, of claims with limitations of "digital television." Further, applicants maintain their position stated in the '571 Application regarding the Schwartz et al. reference. Applicants note that there are no rejections of or objections to any of applicants' pending claims in the instant application based on the issues raised in Example 9, and applicants reserve the right to further respond to the issues raised in Example 9 if any of these assertions are relied on to object to or reject any claim in the future.

Example 10

In Example 10, the Examiner discusses two references of Zaboklicki: DE 2,914,981 and GB#2,016,874. Despite the Examiner's characterization of applicants' arguments regarding these references, applicants maintain that neither Zaboklicki reference anticipates or renders obvious any of applicants' pending claims in the instant application. Applicants have previously addressed issues raised in Example 10 in the '571 Application, and applicants will continue to address in detail any rejection under § 102 or § 103 in which a Zaboklicki reference is applied.

Examples 11, 12, 15 and 16

In Examples 11, 12, 15 and 16, the Examiner discusses applicants' use of the term "programming" in the 1981 and 1987 specifications. More specifically, Examples 11, 12, 15 and 16 assert that applicants cannot claim a 1981 priority date for claims including the term "computer programming," because of an allegedly narrow definition of that term in the 1981 specification. The issues raised in Examples 11, 12, 15 and 16 are only relevant if applicants rely on § 120 to obtain the benefit of their 1981 filing date. As applicants have not claimed priority to their 1981 application for any claims currently pending in this application, the issue is not relevant to the instant application. If and when the Examiner asserts that the issues found in Examples 11, 12, 15 and 16 are relevant to the claims pending in the instant application, applicants will respond at the appropriate time.

Finally, applicants have fully addressed the "programming" issues raised in these examples in several prior responses filed in the '571 Application.

Example 13

In Example 13, the Examiner discusses whether or not radio and television arts represent non-analogous arts. The Examiner states that applicants have previously asserted that the radio and television arts are non-analogous arts. The Examiner's assertions in Example 13 do not form the basis for any rejection of or objection to any specific claim pending in the instant application. To the extent necessary, applicants will further address the issues raised by the Examiner in Example 13 if and when such issues are ever raised in the context of a rejection of or objection to a specific pending claim based on specific applied references in the identified arts.

Example 14

In Example 14, the Examiner discusses issues related to a claim recitation (simultaneous and sequential) in the context of two of applicants' copending applications (i.e., the '571 Application and Application Ser. No. 08/469,078. The Examiner's assertions in Example 14 do not form the basis for any rejection of or objection to any specific claim pending in the instant application. To the extent necessary, applicants will further address the issues raised by the Examiner in Example 14 if and when such issues are ever raised in the context of a rejection of or objection to a specific pending claim. Additionally, applicants note that they have fully addressed issues related to the Examiner's concerns regarding "simultaneous and sequential" in their January 28, 2002 Response filed in the '571 Application.

Examples 17-20 and 23-26

Examples 17-20 and 23-26 discuss various issues related to applicants' ability to obtain a priority date based on their 1981 application and the proper legal test to be applied when analyzing an applicants' ability to obtain a priority date under § 120. None of the issues discussed in Examples 17-20 and 23-26 is relevant to the instant application because applicants have not asserted a 1981

priority date for the claims pending in the instant application. Further, applicants have addressed the issues related to priority in detail in their responses filed in the '571 Application and Application Ser. No. 08/487,526.

Example 21

In Example 21, the Examiner describes and compares the technology disclosed by applicants in their 1981 and 1987 specifications and asserts that the technology disclosed in applicants' two specifications is "vastly different." While it is true that the 1987 application includes many enhancements and improvements, applicants maintain that the subject matter disclosed in their 1981 application is also disclosed in the 1987 application. Second, because applicants have not asserted a 1981 priority date for the claims pending in the instant application, applicants' 1981 specification and any comparison between applicants' 1981 and 1987 specifications are not relevant to the instant application. Finally, the issues raised in Example 21 have previously been addressed in the '571 Application. Applicants will continue to provide appropriate factual and legal arguments as to why they are entitled to a 1981 priority date in all cases where it is relevant.

Example 22

In Example 22, the Examiner discusses a perceived difficulty in interpreting terminology in applicants' claims in light of the 1981 and 1987 specifications. More specifically, the Examiner asserts that certain terminology in applicants' claims takes on different interpretations when such terminology is read on different teachings from applicants' 1981 and 1987 disclosures. The alleged "problem" described in Example 22 is simply not applicable to the instant application because applicants have not asserted a priority date based on their 1981 application for any claim pending in the instant application. In the instant application, only the 1987 specification is used to support the pending claims. Accordingly, the issues raised by the Examiner in Example 22 are not relevant to the instant application. Further, applicants have fully addressed Example 22 in the '571 Application.

Example 28

In Example 28, the Examiner discusses a specific claim pending in the '571 Application (claim 56). Specifically, the Examiner questions applicants' written description support for the recitation "interactive ultimate receiver station" previously appearing in claim 56 of the '571 Application. Applicants maintain that both the 1981 and 1987 specifications unquestionably disclose "interactive receiver stations." *See, e.g.,* 1981 Specification col. 20, ll. 23-27, and "Local Input" in Figure 6D; 1987 Specification, p. 288, ll. 1-20. The Examiner's assertions in Example 28 do not form the basis for any rejection of or objection to any specific claim pending in the instant application. To the extent necessary, applicants will further address the issues raised by the Examiner in Example 28 if and when such issues are ever raised in the context of a rejection of or objection to a specific pending claim. Finally, applicants note that they have already fully addressed Example 28 in the '571 Application.

Example 29

Example 29 discusses limitations directed to combining images (e.g., where a "portion" of an image is "replaced" by a portion of another image) which are allegedly present in claims in applicants' '571 Application. Applicants maintain that applicants' specifications broadly teach the combining of images. The Examiner's assertions in Example 29 do not form the basis for any rejection of or objection to any specific claim pending in the instant application. To the extent necessary, applicants will further address the issues raised by the Examiner in Example 29 if and when such issues are ever raised in the context of a rejection of or objection to a specific pending claim. Further, applicants have already fully addressed the issues raised in Example 29 in the '571 Application.

Example 30

In Example 30, the Examiner discusses the publication date of article/reference by Gunn et al. Applicants acknowledge that the Gunn reference is a transcript from a conference in London that took place from March 26-28, 1980. But this information alone does not qualify the reference as

prior art (i.e., it was unclear when the paper was published). However, since the mailing of the 7/17/02 Office action in the '571 Application, applicants received a copy of the Gunn reference that bears a Massachusetts Institute of Technology Library received stamp dated December 4, 1980. The Examiner also alleges in Example 30 that applicants have previously neglected to provide the Office with information regarding the publication dates of many references. Applicants have diligently supplied the Office with references as they have become known to applicants. In some instances, applicants were not provided with dates of certain references, so applicants were not able to provide the Office with dates for each and every reference identified on some of applicants' Information Disclosure Statements. Additionally, applicants submit that the discussion in Example 30 is not relevant to the instant application because the Gunn reference is not applied against any claim pending in the instant application.

B. Response To Section IV Of The Office Action: Objection To Drawings

In Section IV, the drawings are objected to under 37 C.F.R. § 1.83(a). Title 35 U.S.C. § 113 states that the applicant shall furnish a drawing *where necessary* for the understanding of the subject matter sought. Corresponding Rule 1.81(a) sets forth that the applicant for a patent is required to furnish a drawing of his or her invention *where necessary* for the understanding of the subject matter sought to be patented. Applicants initially note that the claims in this application are directed to methods of processing signals, communicating recommendations and delivering output. A full understanding of the subject matter of these methods claims is obtained from the specification as discussed below. A drawing is not necessary for the understanding of the subject matter of these methods claims. Applicants have, however, provided detailed drawings that depict the apparatus and the signal structure that may be employed to practice the claimed methods, as discussed below. Applicants submit that these drawings are more than sufficient to satisfy the provisions of 35 U.S.C. § 113 and 37 C.F.R. §§ 1.81 and 1.83.

The Examiner has provided no guidance regarding what additional drawings would be desired to provide a clearer understanding of the claimed invention. Rather, a list is provided of

17

claimed "features" that are alleged to be absent from the drawings. There is no explanation of how the drawings fail to show these "features," why such "features" must be shown in the drawings for an understanding of the claimed subject matter (to the extent such "features" are not shown), or how the Examiner expects such "features" to be illustrated.

Specifically, the Examiner states that the following claimed "features" are not shown in the drawings: "information content describing at least one of a product and a service;" "benefit datum;" "investment datum;" "receiver specific benefit datum;" and "first," "second," and "third control signal." Applicants note that the term "investment datum" is no longer used in the claims as amended.

With respect to the remaining terms questioned by the Examiner, applicants' drawings clearly show how such information, data and control signals are communicated within and among the various components used in connection with applicants' invention (e.g., Figs. 6A, 6B, & 7). Moreover, applicants have shown in the drawings the specific components (e.g., television tuner, 215, microcomputer, 205, controller, 12, decoder, 203, processor, 200, monitor, 202, radio, 209, printer, 221, speaker system, 263, and other output apparatus, 261; e.g., Figs. 1, 2D, 3, 4, 6A, 6B, 7, & 7E) that utilize, present and/or process the questioned information, data and control signals. Applicants submit that the depiction of these components, and the interconnections therebetween, are more than sufficient to satisfy any drawing requirement with respect to various types of information, data and control signals.

Accordingly, applicants submit that all drawing requirements have been met. Thus, applicants respectfully request that the objection under 37 C.F.R. § 1.83(a) be withdrawn.

C. **Response To Section V.1 Of The Office Action: Section 112, First Paragraph (Written Description)**

In Section V.1, the Examiner rejects all claims under 35 U.S.C. § 112, first paragraph, as containing subject matter that was not sufficiently described in the specification. The Examiner prefaces his rejections under § 112, first paragraph, by listing a series of quotations from a decision

issued in prior litigation pending before the International Trade Commission (ITC) involving one of

applicants' issued patents. After listing the quotations, the Examiner states that he "continues to

adopt these same positions in regard to the pending amended claims currently at issue." Apparently,

the Examiner includes these quotations to support his rejections under § 112, first paragraph. The

Examiner, however, fails to provide any discussion or explanation regarding the proper procedural

and factual context of these quotes. Placed in an accurate and proper context, the record from the

ITC litigation actually supports applicants' position that the pending claims are justified by the

instant specification.

Before addressing the specific passages quoted in the Office action, applicants must first

provide a procedural overview of the ITC litigation. In the litigation before the ITC, the owner of

applicants' issued patents and the assignee of the instant application, Personalized Media

Communications L.L.C. (PMC), alleged that certain products imported into the United States

infringed several claims of U.S. Patent No. 5,225,277. Following an evidentiary hearing, the ITC

administrative law judge, Judge Luckern, issued a decision entitled "Initial and Recommended

Determinations" (Initial Determinations) on October 20, 1997. *See In re Certain Digital Satellite*

Sys. (DSS) Receivers & Components Thereof, No. 337-TA-392, 1997 WL 696255 (Int'l Trade

Comm'n Oct. 20, 1997). In connection with the evidentiary hearing, three separate groups submitted

briefs and arguments to Judge Luckern: 1) PMC; 2) the accused infringers (Respondents); and 3) the

ITC Staff. Judge Luckern's Initial Determinations made various findings and concluded that: 1)

claims 3, 6, 7, 12, 15, 35, and 44 were invalid as indefinite; 2) claims 3, 6, 7, 12, 15, 35, and 44 were

invalid as not enabled; 3) claim 7 was invalid as anticipated; and 4) no asserted claim was infringed.

Significantly, the Respondents challenged only one claim, claim 44, for lack of written description

support. Judge Luckern found that claim 44 was *not invalid* under § 112, first paragraph, for a

failure to provide proper written description support. *Thus, no claim asserted in the ITC litigation*

was held invalid by Judge Luckern under 35 U.S.C. § 112, first paragraph, for failure to provide

adequate written description support.

19

On December 4, 1997, the ITC issued its Final Determination, which adopted some, but not all, of Judge Luckern's Initial Determinations. Specifically, the ITC's Final Determination adopted Judge Luckern's claim constructions and findings that the asserted claims were indefinite and not infringed. On the other hand, the ITC did not adopt Judge Luckern's other findings concerning, for example, whether the claims were enabled or whether claim 7 was anticipated. On appeal before the Federal Circuit were only those findings by Judge Luckern that the ITC expressly adopted in its Final Determination. The Federal Circuit's opinion: 1) reversed Judge Luckern's and the ITC's determination that the asserted patents claims were invalid for indefiniteness; 2) vacated Judge Luckern's and the ITC's determination that asserted claim 7 was not infringed; and 3) affirmed Judge Luckern's and the ITC's determination that claims 6 and 44 were not infringed. *See Personalized Media Communications, LLC v. Int'l Trade Comm'n*, 161 F.3d 696, 48 USPQ2d 1880 (Fed. Cir. 1998). As a result of the Federal Circuit opinion, the case was remanded to the ITC. After the case was remanded to the ITC, PMC withdrew its complaint and the ITC vacated Judge Luckern's Initial Determination with respect to the findings of invalidity for anticipation and lack of enablement. *See In re Certain Digital Satellite Sys. (DSS) Receivers & Components Thereof*, No. 337-TA-392, 2001 WL 535427 (Int'l Trade Comm'n May 13, 1999). Accordingly, the quotes relied upon by the Examiner in the Office action, all of which are from Judge Luckern's discussion of invalidity for lack of enablement, were vacated by the ITC.

As applicants have already noted, with respect to the only claim even challenged under the written description requirement of § 112, Judge Luckern concluded that the claim was *not invalid* on that basis.[2] Regarding the first quote, Judge Luckern's belief that the 1987 specification is "difficult to understand as it is dealing with many possible systems," even if true, is not a proper reason for the Examiner to conclude that none of applicants' claims are supported under § 112. Regarding the second quote, in which Judge Luckern discusses the complainant's identification of written

---

[2] Additionally, in allowing the claims asserted in the ITC to issue, the PTO understood that those claims were adequately supported under § 112.

description support for the asserted claims of U.S. Patent No. 5,225,277, what is important is that Judge Luckern did not find that any of the asserted claims were invalid for failure to satisfy the written description requirement of § 112. Finally, the last two quotes identified by the Examiner actually contain statements made by the ITC Staff in opening arguments. The comments advanced by the Staff in the ITC litigation describing "directions to a treasure map" and "ships passing in the night" are attorney arguments advanced during litigation, and such arguments are simply not indicative of applicants' actions before the PTO.

When the Examiner's citations to the ITC record are presented accurately and in their proper substantive and procedural context, the citations do not support the Examiner's position. Indeed, the ITC record is consistent with applicants' position on the written description issue. The statements relied upon by the Examiner are nothing more than dicta concerning a finding by Judge Luckern that was later vacated. Further, even if these findings had not been vacated, the observations by Judge Luckern do not contradict applicants' position that the pending claims are properly supported under § 112, first paragraph.

The Examiner asserts that he has followed the "Guidelines for Examination of Patent Applications Under the 35 U.S.C. 112, ¶1, "Written Description" Requirement, 66 Fed. Reg. 4 (2001). Applicants note that the eighth edition of the M.P.E.P. at § 2163 has been rewritten to incorporate these guidelines. *See* M.P.E.P. Summary of Changes (blue pages) at 37. Accordingly, applicants submit that the examination of this application should follow the guidelines as set forth in M.P.E.P. § 2163. The Examiner has not fully complied with these guidelines. Section 2163 III sets forth how the Examiner must clearly communicate his findings, conclusions, and their bases. These findings, in addition to merely identifying claim limitations, should:

> Establish a *prima facie* case by providing reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed.

M.P.E.P. § 2163 III. A. (B). When appropriate, the Examiner should also suggest amendments to the claims which can be supported by the application's written description. The Examiner has not established a *prima facie* case, as discussed below.

In rejecting claims 2-5, the Examiner does nothing more than identify specific limitations pending in a given claim and state "the critical components and features called for in the claims are nowhere to be found either in the specification or in the drawings figures" (p. 59). There is absolutely no analysis of, reference to, or discussion of any of the teachings found in applicants' specification which disclose the claimed subject matter. By failing to include any analysis, reference to, or discussion of any of the teachings found in the specification, the Examiner failed to "provid[e] reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed." M.P.E.P. § 2163 III. A. (B). Thus, the Examiner failed to establish a *prima facie* case.

Moreover, the Examiner does not even identify any limitations of claims 9-14, 16 and 18-21 that are allegedly not supported. Rather, the Office action merely states that "claims 9-14, 16 and 18-21 are similarly analyzed and rejected." This is plainly insufficient to establish a *prima facie* case of lack of written description support for these claims under the requirements set forth in M.P.E.P. § 2163 III. A. (B).

Notwithstanding the Examiner's failure to follow the guidelines set forth in M.P.E.P. § 2163, applicants have provided a chart (attached as Appendix B) that identifies detailed written description support for each and every limitation of the pending claims. Applicants respectfully submit that the illustrative support identified in Appendix B, together with applicants' narrative discussion below, demonstrates that the claimed subject matter is described in the specification in such a way as to reasonably convey to one skilled in the art that applicants had possession of the claimed inventions at the time the 1987 application was filed. Applicants wish to note that the support provided below and in Appendix B is illustrative and the claims may be supportable by other/additional teachings of

22

the 1987 specification. Applicants also wish to note that the claims of the instant application should

not be construed to be limited based on the support provided.

1) "Farm Plans Of Europe" And "Program Unit Q" Examples Provide Sufficient Written Description Support For Claims 2-5, 9-14, 16 & 18-21

The Farm Plans and Program Unit Q Examples provide written description support for the

claims.

The information content disclosed in the Farm Plans Example includes television

programming (p. 552, ll. 18-19) including commercials (p. 553, 27-29), embedded control signals

(e.g., 547, ll. 33-35), and specific crop planting information applicable to a particular farmer (p. 552,

ll. 24-26). The programming and embedded control signals are transmitted from a master station to

national and local intermediate transmission stations ("ITS"), and finally to a particular farmer's

ultimate receiver station ("URS") (p. 542, l. 33 - 543, l. 19), via satellite, cablecast, or other means

(p. 12, ll. 21-22).

Each farmer's URS has a television, a computer, and an input device (p. 533, l. 35 - p. 534, l.

5; p. 555, ll. 19-29). During the course of the Farm Plans Example presentation, the receiver station

television outputs a commercial that includes a cost/benefit analysis of a product or service that

compares the product or service to the subscriber's existing product or service of like kind (p. 554, l.

22 - p. 555, l. 13).

The URS computer processes stored farm-specific data to generate a user-specific crop

planting plan (p. 548, ll. 18-22) and stores the plan (p. 551, ll. 11-14). The subscriber executes a

module that allows the subscriber to modify the crop plan, and the receiver station then transmits the

modified plan so that the master station can aggregate such information with similar data from other

subscribers (p. 555, l. 24 - p. 556, l. 6). By aggregating at the master level, the master transmission

station can identify whether current plans indicate, e.g., an over-production of a particular crop in a

particular locality (p. 555, l. 24 - p. 556, l. 6). Such an overproduction would be reflected in the next

transmission and calculation of specific crop plans (p. 556, ll. 12-16).

In the Program Unit Q Example, a central station broadcasts a television commercial called Program Unit Q (p. 478, ll. 23-26), which includes video, a data module containing generally applicable information (p. 357, ll. 31-35; p. 378, line 28 - p. 379, line 4; p. 482, line 27 - p. 483, line 13; p. 488, ll. 21-27), and at least one embedded SPAM control signal (p. 384, line 30 - p. 384, line 2; p. 482, ll. 27-31; p. 481, ll. 7-9; p. 478, ll. 23-26), which are stored at the receiver station (p. 483, ll. 2-13; p. 484, ll. 12-15). In response to the control signal, the receiver station processes and stores a file at the receiver station and generates computer directory information designating the file's location at the D: disk drive (p. 483, ll. 9-13; p. 510, ll. 16-17).

While the commercial of program unit Q is displayed, the receiver calculates the cost of delivering a product to the subscriber and the percentage savings that would result if the subscriber purchased the product (p. 486, ll. 2-19; p. 488, ll. 18-26). The receiver station selects from the data module's generally applicable information the audio information of the announcer saying the number corresponding to the percentage savings, e.g., "forty-six" (p. 488, ll. 13-27). The receiver station outputs the audio and video of the commercial, which shows a television announcer soliciting the subscriber to input a code at the receiver station in order to receive delivered groceries (p. 507, ll. 5-11). The subscriber then inputs the code (p. 508, ll. 29-30). Upon receiving the code at the input device, the subscriber station completes a second control signal by accessing the file at the D: disk drive (p. 510, ll. 15-30). The completed signal causes the station to automatically dial a phone number to request the grocery delivery (p. 510, ll. 15-30).

a) Support For Claim 2 And Claims Depending Therefrom

Claim 2 is directed to "a method of processing signals at a receiver station based on at least one information transmission." Claim 2 recites "receiving information content and a first control signal in said at least one information transmission, said information content describing at least one of a product and a service." In the Farm Plans example, the receiver station receives information relating to a commercial (information content) associated with a television program entitled "Farm Plans of Europe" in addition to a second-cueing message (first control signal) embedded in

the transmission of the program (p. 553, l. 27 - p. 554, l. 3; p. 554, ll. 22-32). The commercials describe products such as trucks as well as delivery of services related to proprietary software (p. 555, ll. 2-5).

Claim 2 also recites "generating a benefit datum in response to said first control signal by processing subscriber specific data." The subscriber station stores crop planting plan information specific to each subscriber (subscriber specific data) in a file called PLANTING.DAT (p. 551, ll. 12-14; p. 550, line 30 - p. 551, line 7). The second-cueing message causes the receiver station to access the subscriber specific data of PLANTING.DAT and generate a cost/benefit financial analysis (benefit datum) of the incremental benefit of acquiring and using a particular product or service (by comparison with information stored at PLANTING.DAT regarding the farmer's existing product or service of like kind) (p. 554, line 22 - p. 555, line 13).

Claim 2 further recites "delivering said information content and said benefit datum at an output device at said receiver station, wherein said information content and said benefit datum explain a benefit of acquiring said product or service specific to said subscriber." The receiver station outputs the generated cost/benefit analysis as part of a commercial (information content) for a particular product or service (p. 554, line 22 - p. 555, line 13). It is output following the "Farm Plans of Europe" television program at an output device at the receiver station, such as the monitor (output device) (Fig. 7). As described above, the cost/benefit analysis describes the benefit to the specific subscriber of acquiring the product or service (p. 554, line 22 - p. 555, line 13). The calculated costs and benefits are specific to the subscriber because they compare the product or service of the commercial with the subscriber's existing product or service of like kind (p. 554, line 22 - p. 555, line 13).

Claim 2 further recites "receiving a subscriber input after said step of delivering." After the commercials are outputted, the subscriber provides input to load and execute an instruction module (p. 555, ll. 14-23) and enter information that modifies the file PLANTING.DAT (p. 555, ll. 14-23).

Claim 2 further recites "controlling said receiver station based on said subscriber input." After the subscriber enters the input, the instruction module causes (controls) the receiver station to transmit the PLANTING.DAT file, now modified by the input, to a remote station (p. 555, ll. 19-29).

Claims 3, 4, 10-14, and 16 depend from claim 2. The support for these claims is thus based upon the support discussed above in connection with claim 2. These claims set forth further features found in the specification. The specific support for the elements set forth in these claims is fully demonstrated in the charts contained in Appendix B.

b) Support For Claim 5 And Claims Depending Therefrom

Claim 5 is directed to "a method of communicating recommendations to a subscriber." During the "Farm Plans of Europe" presentation, a master station communicates farm planting plan recommendations to a subscriber. (p. 552, ll. 20-30; p. 548, ll. 6-22). One step of the method recites "storing subscriber specific data of said subscriber at a subscriber station." The subscriber station stores on a file called MY.FARM.DAT information specific to that subscriber's farm, including the size of the farm property, the farm's history of crop rotation, and the farm equipment (subscriber specific data) (p. 534, ll. 4-13).

Claim 5 also recites "receiving at said subscriber station at least one first instruct signal which is effective to cause said subscriber station to present a first subscriber specific recommendation to said subscriber based on said subscriber specific data." The receiver station receives SPAM control signals (first instruct signal) that cause the subscriber station to generate and present to the farmer a recommended crop planting plan (first subscriber specific recommendation) (p. 548, ll. 1-22; p. 552, ll. 20-30). The receiver station calculates the crop planting plan based on the subscriber's stored, farm-specific information, and it is therefore specific to the subscriber's farm (p. 549, line 32 - p. 550, line 10; p. 534, ll. 4-13).

Claim 5 further recites "receiving subscriber input at said subscriber station responsive to said first subscriber specific recommendation." After studying the outputted crop plan

26

recommendation, the subscriber provides input to load and execute an instruction module and enter

new information to modify the recommended crop plan (p. 555, ll. 14-23).

Claim 5 further recites "transmitting information based on said subscriber input to a remote

station." The new crop plan (information) modified by the subscriber input is then transmitted to a

remote station (p. 555, ll. 21-29).

Claims 9, 19, and 20 depend from claim 5. The support for these claims is thus based upon

the support discussed above in connection with claim 5. This claims set forth further features found

in the specification. The specific support for the elements set forth in these claims is fully

demonstrated in the charts contained in Appendix B.

c) Support For Claim 18

Claim 18 is directed to "a method of processing signals at a receiver station based on one of

at least one broadcast transmission and at least one cablecast transmission." The signal processor at

the receiver station can receive and process signals delivered via broadcast and cablecast (p. 29, ll. 4-

7; p. 15, ll. 17-19). The signals are processed as described below.

Claim 18 recites "receiving at said receiver station a first control signal and at least one of

video and audio in said at least one transmission." The receiver station receives conventional

television programming of program unit Q and embedded SPAM control signals delivered (p. 470,

ll. 9-16; p. 59, ll. 29-33; p. 478, ll. 23-26; p. 481, ll. 7-9). Program unit Q contains a commercial that

includes both video and audio (p. 478, ll. 23-26). One of the SPAM control signals embedded in

program unit Q is data-module-set-message #10 (first control signal) (p. 384, line 30 - p. 385, line 2;

p. 482, ll. 27-31).

Claim 18 also recites "generating information by processing data at said receiver station in

response to said first control signal." The data-module-set message #10 includes information of a

file called "DATA_OF.ITS" (p. 482, ll. 32-35). Receiving the data-module-set-message #10 causes

the receiver station to process and store the information of "DATA_OF.ITS" (data) at the "D:" disk

of the receiver station in a file (p. 482, line 32 - p. 483, line 13) subsequently referenced as

"D:DATA_OF.ITS" (p. 510, ll. 15-23). During the process of storing, the receiver station

correspondingly generates directory information (information) of the file "DATA_OF.ITS" so that

the receiver station computer can internally locate and access the file at the D: drive (p. 483, ll. 2-

14). Thus, the receiver station thereby generates directory information by processing the

"DATA_OF.ITS" file in response to the data-module-set message.

Claim 18 further recites "delivering said at least one of video and audio at an output device at

said receiver station." The audio-visual television programming is outputted to a television monitor

at the receiver station (p. 507, ll. 5-11; p. 508, ll. 21-27). Such audio-visual programming can

include video information of a television announcer pointing to an input code and audio information

of the announcer asking the viewer to enter the code at the subscriber station input (p. 507, ll. 5-11;

p. 508, ll. 21-27).

Claim 18 further recites "receiving a subscriber response to said delivered at least one of

video and audio." In response to the television announcer asking the subscriber to input "TV568*,"

the subscriber enters "TV568*" at the input device of the receiver station, and the microcomputer at

the receiver station receives the input (p. 508, ll. 29-34).

Claim 18 further recites "completing a second control signal based on said received

subscriber response and said generated information." Receiving the subscriber response causes the

receiver station to access the D:DATA_OF.ITS file (using the generated directory information) and

select a particular phone number from the contents of the file (p. 510, ll. 15-23). Receiving the

subscriber response also causes the receiver station to transmit "call-this-number-and-respond-with-

'A:SHOPPING.EXE'" instructions together with the particular phone number to a controller at the

receiver station (p. 510, ll. 15-26). Together, the "call-this-number-and-respond-with-

'A:SHOPPING.EXE'" instructions and the selected phone number are a complete instruction to call

the phone number (collectively, a second control signal) (p. 510, ll. 15-33). The completed

instruction is effective to cause the auto dialer to telephone the phone number (p. 509, line 35 - p.

510, line 4; p. 510, ll. 26-30).

28

Claim 18 further recites "controlling said receiver station in accordance with said second control signal." As stated above, receiving the "call-this-number-and-respond-with-'A:SHOPPING.EXE'" calling instructions causes the receiver station to automatically dial the telephone number (p. 510, ll. 26-30).

d)   Support For Claim 21

Claim 21 is directed to a method of "delivering a receiver specific output at a video receiver station to explain a benefit of an offer made to a specific user through said video receiver station." In the Program Unit Q Example, a user-specific commercial (receiver specific output) delivered to a receiver station (video receiver station) explains a benefit of a commercial offer made to a specific subscriber (user) (p. 12, ll. 3-9; p. 470, ll. 9-12; p. 480, ll. 14-17; p. 552, ll. 20-30; p. 535, ll. 34-35; p. 360, ll. 34-35; p. 478, ll. 23-26; p. 509, ll. 31-34; p. 490, ll. 11-23; p. 491, ll. 10-16).

Claim 21 recites "receiving at least one information transmission at said video receiver station, said information transmission including video, generally applicable information and a control signal." The receiver stations receive program unit Q, which includes a commercial containing such video information as a video announcer's arm pointing toward the upper left hand portion of the television display (p. 478, ll. 23-26; p. 490, ll. 21-23). The program unit Q transmission includes, in the data-module-set message DATA_OF.ITS (p. 383, line 25 - p. 385, line 2; p. 482, line 28 - p. 483, line 20), generally applicable information, e.g., audio information of an announcer saying the words "forty-three," "forty-five," and "forty-six" (p. 357, ll. 23-35; p. 378, line 28 - p. 379, line 4; p. 488, line 21 - p. 489, line 13). Collectively, the three words are generally applicable information because they are available to be outputted at each receiver station, even though each receiver station will select to play only one of the three words during a single "Program Unit Q" presentation. The receiver stations also receive SPAM control signals, including control signals called "data-module-set message #10," "program-instruction-set message #10" (control signal), and "commence-outputting message #10 (p. 482, ll. 32-34; p. 59, ll. 29-31; p. 484, ll. 2-9; p. 492, ll. 1-12; p. 492, ll. 19-22).

29

Claim 21 also recites "storing said generally applicable information and said control signal at said video receiver station." The audio information (generally applicable information) of the three words is part of a file called "DATA_OF.ITS," which is stored at the receiver station (p. 488, ll. 21-26; p. 482, line 27 - p. 483, line 13). The control signal "program instruction set of Q.1," which is in "program-instruction-set message #10," is loaded and stored at the receiver station (p. 484, ll. 12-15; p. 492, ll. 19-22; p. 480, ll. 14-17 & Fig. 7E; p. 34, ll. 21-28 & Fig. 2A; p. 36, ll. 32-33; p. 156, line 33 - p. 157, line 10 & Fig. 3A).

Claim 21 further recites "outputting said video at a video monitor." Video information of program unit Q is output at the television monitor, including the video image of an announcer's arm pointing to the upper left hand portion of the television screen (p. 490, ll. 21-23; p. 491, ll. 13-16; p. 470, ll. 9-17; p. 479, line 25 - p. 480, line 17). The upper left hand portion of the screen is the location where the cost of a particular product is displayed during the commercial (p. 490, ll. 15-19 & p. 491, ll. 13-15).

Claim 21 further recites "selecting at least one receiver specific benefit datum to output by processing said generally applicable information in accordance with said control signal." In accordance with the "program-instruction-set message #10," the receiver station selects the audio information of one of the three generally applicable words described above, e.g., "forty-six" (receiver specific benefit datum), from among the three generally-applicable words (p. 484, ll. 12-18; p. 485, ll. 14-18; p. 487, ll. 19-35; p. 488, ll. 21-27). The selected audio information corresponds to the percentage savings that would accrue to the subscriber if the subscriber purchased a particular featured product (p. 488, ll. 13-17 & 24-25). The percentage savings is calculated based on the distance between the receiver station and the nearest supermarket, and the resulting percentage savings is therefore specific to the receiver station (p. 488, ll. 17-23; p. 486, ll. 2-19).

Claim 21 further recites "outputting said selected at least one receiver specific benefit datum in a time of specific relevance during said outputting of said video in response to at least a second control signal." The Program Unit Q audio includes an interval that is long enough for each

30

subscriber station to emit sound of its specific audio RAM information (p. 493, ll. 16-18). The program's audio output is, immediately before this interval, "this offer represents a saving to you of over" (p. 491, ll. 30-35). In the interval, the station outputs its audio "forty-six" (p. 492, ll. 23-30). Immediately after the interval, the program's audio is "percent" (p. 493, ll. 16-21). While the audio is outputted, the video image of the announcer pointing at the price in the upper left hand corner of the screen is displayed on the television monitor (p. 490, ll. 21-23; p. 494, ll. 28-30). Thus, the receiver specific benefit datum is output only when it is of specific relevance to the conventional television programming (p. 27, ll. 21-23).

Claim 21 further recites "said outputting of said video and said outputting of said selected at least one receiver specific benefit datum explain said benefit of said offer to said specific user of said video receiver station." The video of the announcer pointing to the product price and the audio of the percentage savings resulting from purchasing at the offered price explain to the subscriber the benefit of accepting the offer to purchase the featured product. (p. 490, ll. 15-19; p. 491, ll. 13-16; p. 491, ll. 33-35; p. 492, ll. 26-30; p. 493, ll. 16-21).

2) Response To Section V.2 Of The Office Action: Section 112, First Paragraph (Enablement)

The Examiner at Section V, part 2, further rejects all claims under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter that was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Particularly, the Examiner alleges that the essential novelty, the essence of the invention, must be described with greater particularity than that exhibited in this application. Moreover, the Examiner asserts that nowhere in applicant's specification is contained sufficient information regarding the subject matter of the claims as to enable one skilled in the pertinent art to make and use the claimed invention. Further, the Examiner suggests that under the circumstances, one of ordinary skill in the art would be burdened with undue experimentation in

trying to make and use the claimed invention. p. 61. Applicants strongly disagree and traverse this rejection on the following grounds.

The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures coupled with information known in the art without undue experimentation. *United States v. Telectronics, Inc.*, 857 F. 2d 778, 785 (Fed. Cir. 1988). A patent need not teach, and preferably omits, what is well known in the art. MPEP § 2164.01 (citations omitted). The scope of the required enablement varies inversely with the degree of predictability involved, but even in unpredictable arts, a disclosure of every operable species is not required. MPEP § 2164.03. A single embodiment may provide broad enablement in cases involving predictable factors, such as mechanical or electrical elements. *Id.* (citations omitted).

In order to make a rejection, the Examiner has the initial burden to establish a reasonable basis to question the enablement provided for the claimed invention. *In re Wright*, 999 F.2d 1557 (Fed. Cir. 1993). The minimal requirement is for the Examiner to give reasons for the uncertainty of the enablement. *In re Bowen*, 492 F.2d 859, 862-63 (CCPA 1974). MPEP § 2164.04 states:

> The language [of the rejection] should focus on those factors, reasons, and evidence that lead the examiner to conclude that the specification fails to teach how to <u>make and use</u> the claimed invention without <u>undue experimentation,</u> or that the scope of any enablement provided to one skilled in the art is not commensurate with the scope of protection sought by the claims. This can be done by making specific findings of fact, supported by the evidence, and then drawing conclusions based on these findings of fact. For example, doubt may arise about enablement because information is missing about one or more essential parts or relationships between parts which one skilled in the art could not develop without undue experimentation. In such a case, the examiner should specifically identify what information is missing and why one skilled in the art could not supply the information without undue experimentation.

(Emphasis in original) This is followed by the explicit statement: "specific <u>technical reasons are always required</u>." MPEP § 2164.04 (Emphasis added).

Given these requirements, it is clear that the Examiner has failed to establish a *prima facie* case of lack of enablement. Particularly, the Examiner has not provided any of the required reasoning to base a conclusion that one of ordinary skill in the art would be burdened with undue experimentation to make and use the invention or that the enablement provided by the specification is not commensurate with the scope of protection sought by the claims. In fact, the Examiner provides no lack of enablement analysis whatsoever with respect to the particular recitations of claims 3-5, 9-14, 16, and 18-21. The only claim limitation specifically noted by the Examiner is one "example" limitation of claim 2. Here, the Examiner simply states that "the critical components and features called for in all claims are nowhere to be found either in the specification or in the drawing figures," and to support this assertion, the "example" limitation of claim 2 is cited as not being supported by the specification. However, in addition to failing to identify any specific limitations of claims 3-5, 9-14, 16, and 18-21, the Examiner fails to provide any reasoning as to why one of ordinary skill in the art could not obtain the example limitation cited from claim 2 without undue experimentation.

Despite the absence of any reasoned analysis to support the enablement rejection, the Examiner asserts that the burden has shifted to applicants to rebut this challenge. This assertion is clearly incorrect. The burden has not shifted because the Examiner has failed to establish a *prima facie* case of lack of enablement. This is further exemplified by the Examiner's wholly unsupported allegation that "the disclosure fails to show how the various structures must be interconnected, timed and controlled...." Examiner provides no reasoning to support this conclusory statement. For example there is no mention of what interconnectivity, timing and/or control description is allegedly absent from the disclosure. Moreover, there is no reasoning provided as to why the extensive and detailed disclosure of interconnectivity, timing and control in applicants' specification is insufficient (*see, e.g.,* Figs. 1, 6A, 6B & 7; p. 535, ll. 18-22; p. 324 - p. 340; p. 534, ll. 28-33; p. 536, ll. 3-17; p. 537, ll. 6-17; p. 538, ll. 12-16; p. 539, ll. 20-24; p. 374, line 29 - p. 375, line 6; p. 469, ll. 7 - 17).

33

In sum, applicants maintain that the Examiner's assertions lack the specific reasoning, and particularly technical reasoning, to support a lack of enablement rejection. Thus, the Examiner has failed to meet his burden to sustain such a rejection, and the rejection should therefore be withdrawn. In addition, the Examiner's attention is directed to the detailed support discussion provided above (and in Appendix B) in response to the rejection based on the written description requirement. This support also establishes that applicants' specification is enabling.

D. Response To Section VI Of The Office Action: Section 112, Second Paragraph

In rejecting the claims under Section 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as their invention, the Examiner alleges that several terms in the claims are vague and/or indefinite. The Examiner also makes several queries regarding the interpretations of those terms. Applicants address the Examiner's rejections and respond to his queries below. Based on the discussion below, applicants submit that the rejection of the claims under Section 112, second paragraph should be withdrawn.[3]

a)   Claims 2 & 5

The Examiner asserts that the recitations in the first step of claim 2 are unclear. This step has been amended to recite "information content" instead of "some information content" to clarify this step. Moreover, applicants submit that this step is clear and definite in view of the support provided above responsive to the rejection under 35 U.S.C. § 112, first paragraph. For example, this step is

---

[3] In rejecting claims 2-5, 9-14, 16, and 18-21 under 35 U.S.C. § 112, second paragraph, as being indefinite, the Examiner identifies several terms and phrases in claims 2, 4, 5, 9, and 12 that he alleges are unclear. However, the Examiner has failed to identify any language from claims 3, 10, 11, 13, 14, 16, and 18-21 that raises any issues under 35 U.S.C. § 112, second paragraph. Applicants therefore have not been provided with any reasons to justify the rejection of claims 3, 10, 11, 13, 14, 16, and 18-21 under 35 U.S.C. § 112, second paragraph. This rejection is therefore improper and should be withdrawn with respect to these claims.

34

clear in view of the disclosure of the commercial programming (p. 553, ll. 27-29). Applicants also submit that the term "benefit datum" is also clear and definite in view of applicants' disclosure of the cost/benefit analysis (p. 554, line 22 - p. 555, line 13). With respect to the phrase "inputting a subscriber reaction," applicants have deleted this term so that it no longer appears in claim 2. Instead, claim 2 recites "receiving a subscriber input," which applicants submit is clear and definite, and certainly justified by the specification (p. 555, ll. 14-23).

With respect to claim 5, the Examiner simply states that "Claim 5 has similar deficiencies as claim 2." None of the specific limitations identified by the Examiner are present in amended claim 5. However, to the extent that any of issues raised by the Examiner with respect to claim 2 are applicable to claim 5, applicants submit that their response to claim 2 is applicable to claim 5. Accordingly, applicants submit that this claim is clear and definite, particularly in view of the support provided above in response to the rejection under 35 U.S.C. § 112, first paragraph.

b) Claim 4

The Examiner requests clarification regarding how the term "control signal" in claim 4 relates to the "first and second control signals" of claim 2. Claim 4 has been amended and no longer recites a "control signal," thus overcoming the rejection.

c) Claim 9

The Examiner requests clarification regarding how "said signals" relate to other "signals" language such as "detect signals." Claim 9 has been amended such that it recites "signal" only in the context of "at least one second instruct signal," thus overcoming the rejection.

d) Claim 12

The Examiner requests clarification regarding how "a transmitter station" relates to other "broadcast/cable." Claim 12 has been amended such that the terms "transmitter station," "broadcast," and "cable" no longer appear in claim 12, thus overcoming the rejection.

Accordingly, applicants submit that claims 2-5, 9-14, 16, and 18-21 are clear and definite, and therefore respectfully request that the rejection under 35 U.S.C. § 112, second paragraph be withdrawn.

E. Response To Section VII Of The Office Action: Section 102(b)

1) Campbell Does Not Anticipate The Pending Claims

Claims 2-5, 9-14, 16 and 18-21 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 4,536,791 to Campbell et. al. (Campbell). Campbell is directed to an addressable cable television control system that embeds text signals in a regular cablecast transmission to a plurality of receiver stations and enables a form of two-way communication between the receiver stations and the transmission station. A centralized control station can prohibit subscriber access to premium channels. Subscribers can prohibit subscriber access to youth-restricted content. Further, subscribers can access premium content (for a fee) by entering a code at an input device, such as a keyboard. The code is transmitted to a data control system at the cable head end, and the data control system then commands the subscriber station to allow or disallow the programming.

Campbell fails to teach or suggest each step of the methods set forth in claims 2-5, 9-14, 16 and 18-21 for the reasons discussed below.

a) Claim 2 -4, 10-14 and 16

In finding that Campbell anticipates the claims, the Examiner discusses claims 2, 5 & 18-21 collectively in a single discussion. The Examiner cites a variety of diagrams and text references in Campbell to show the steps of claim 2, 5 & 18-21. Applicants respectfully submit that such diagrams and text references do not anticipate the claims. Many of the diagrams and references do not even *relate* to the steps of the claims. For instance, to show "delivering said information content and said benefit datum at an output device at said receiver station" from claim 2, the Examiner cites column 5. Column 5 discusses how data signals are processed and embedded at the central control

36

station. The passage does not mention an output device at the receiver station nor any other component of the receiver station, and it similarly fails to mention the "delivery of information" anywhere outside the central control station. While the Examiner additionally cited Fig. 2, element 20 (the head end signal combiner) which ultimately outputs data to the receiver stations, element 20 is not itself an output device at the receiver station. Rather, it is an output device at the central control station.

With respect to the step of "generating a benefit datum [by processing subscriber data] in response to said first control signal,"[4] the Examiner cites col. 1, line 55 - col. 2, line 68 and col. 5, ll. 5-10. These passages discuss: (1) the variety of programming available via cable; (2) the control station's transmission of text embedded in cable transmissions; and (3) the control of access to television programming and text data. The passage does not identify any "subscriber [specific] data," nor does it mention either "processing subscriber [specific] data" or any kind of "control signal." The Examiner mentions a "stock datum" as an example of a benefit datum that is generated by processing subscriber [specific] data in response to a first control signal. However, the Examiner fails to show how the alleged "processing subscriber [specific] data in response to a control signal" results in "generating" stock data as required by claim 2.

To show "delivering said information content and said benefit datum at an output device at said receiver station," the Examiner cites Figures 10 & 15 and column 17, lines 65-68. Claim 2 has been amended to recite "wherein said information content and said benefit datum explain a benefit of acquiring said product or service specific to said subscriber." Nothing in Campbell teaches or suggests providing an explanation of a benefit of acquiring a product or service *specific to the subscriber.*

For at least these reasons, Campbell does not anticipate claim 2.

---

[4] Claim 2 has been amended, and the relevant portion of claim 2 now recites "generating a benefit datum in response to said first control signal by processing subscriber specific data." This change does not affect the above discussion.

Because claims 3, 4, 10-14 and 16 depend from claim 2, applicants respectfully submit that Campbell does not anticipate these claims for at least the reasons discussed above for claim 2. Campbell additionally fails to anticipate these claims for the reasons discussed below.

The Examiner cites "stock, col. 5, lines 5-50" to teach "storing said subscriber datum at a computer at said receiver station [, said subscriber datum being an investment datum]" from claim 3. As mentioned above, column 5 discusses how data signals are processed and embedded at the central control station, not the receiver station. This passage does not teach this step of claim 3 because it does not mention a computer at the receiver station, nor any other receiver station component; nor does it mention the concept of "storing."

For claim 4, the Examiner cites col. 4, ll. 64-68 and col. 5, ll. 1-50 as teaching "programming said computer to respond to said control signal." Claim 4 no longer includes this language. Instead, it recites the method of claim 2 "wherein said subscriber input modifies said subscriber specific data." As noted above, Campbell does not disclose the "subscriber specific data" of claim 2, and therefore does not disclose any subscriber input that modifies such data.

Claim 10 recites "wherein said information content comprises a commercial." Claim 11 recites "wherein said commercial is stored at said receiver station prior to said step of delivering." Nothing in Campbell teaches or suggests the idea of storing commercials prior to delivering the commercials to the subscriber.

Claim 12 recites "wherein said commercial is selected from a plurality of commercials based on said subscriber specific data." Campbell does not teach selecting commercials based on subscriber specific data.

Claim 13 recites the method of claim 11 "wherein said step of delivering comprises delivering said commercial from storage at said receiver station." Campbell does not teach storing a commercial at the receiver station, and it therefore does not teach delivering the commercial from storage at the receiver station.

Claim 14 recites the method of claim 13 "wherein said step of delivering is performed based on a schedule." Again, Campbell does not teach the storage feature of claim 13, so it also does not teach delivering from storage based on a schedule.

For at least these reasons, Campbell fails to anticipate claims 10-14 and 16.

b)   Claims 5, 9, 19, and 20

Claim 5, as amended, recites "present[ing] a first subscriber specific recommendation to said subscriber based on...stored subscriber specific data." Campbell does not teach presenting any sort of subscriber specific recommendation, and certainly not one based on stored subscriber specific information.

Claim 5 recites "receiving subscriber input at said subscriber station responsive to said...recommendation." Campbell does not teach a subscriber input that is responsive to a subscriber specific recommendation based on stored subscriber specific data. Without a recommendation based on subscriber specific information, there can be no input based on the recommendation.

Claim 5 recites "transmitting information to a remote station based on said subscriber input." With no input, as described above, there can be no "transmitting information...based on said...input."

For at least these reasons, Campbell does not anticipate claim 5.

Because claims 9, 19 and 20 depend from claim 5, applicants respectfully submit that Campbell does not anticipate these claims for at least the reasons discussed above for claim 5. Campbell additionally fails to anticipate these claims for the reasons discussed below.

Claim 9, as amended, now depends from claim 5 and recites "the method of claim 5, said method further comprising receiving at said subscriber station at least one second instruct signal which is effective to cause said subscriber station to present a second subscriber specific recommendation based on said subscriber input and said stored subscriber specific data." Campbell

does not teach "presenting a second subscriber specific recommendation based on...subscriber input and stored subscriber specific data."

Claim 19, as amended, recites "[t]he method of claim 5, wherein said instruct signal is received from a first transmitter, and said subscriber specific recommendation is further based on information specific to said first transmitter." Campbell does not teach a subscriber specific recommendation that is based on information specific to the first transmitter.

Claim 20, as amended, recites the method of claim 19 "wherein said first transmitter receives at least a portion of said instruct signal from a second transmitter, and said subscriber specific recommendation is further based on information specific to said second transmitter." Campbell does not teach a second transmitter that transmits instruct signals to a subscriber via the first transmitter. Campbell also does not teach or suggest a subscriber specific recommendation that is based on information specific to a second transmitter.

c) Claims 18 & 21

As the Examiner discussed the features of 2, 5, and 18-21 in a single discussion, and applicants have already discussed claims 2 and 5 above, applicants submit that Campbell does not anticipate claims 18 and 21 for at least the reasons discussed above with respect to claims 2 and 5. Campbell also fails to anticipate claims 18 and 21 for the reasons discussed below.

Claim 18 recites a "second control signal based on [a] received subscriber response and [information generated by processing data at the receiver station in response to a control signal]." Campbell does not teach or suggest a second control signal that has these features, and thus Campbell does not anticipate claim 18.

Claim 21 recites selecting a receiver specific benefit datum from generally applicable information in accordance with a control signal, wherein the control signal and the generally applicable information are received and stored at the receiver station. Campbell does not teach or suggest a receiver specific benefit datum or selecting a receiver specific benefit datum, and thus Campbell does not anticipate claim 21.

40

For at least the reasons described above, Campbell does not anticipate or suggest any of the pending claims.

2) Saeki Does Not Anticipate Claims 5 & 18-21

Claims 5 and 18-21 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 4,455,570 to Saeki et. al. (Saeki). Claims 5 and 18-21 have been amended. Saeki does not anticipate claims 5 and 18-21 for the reasons described below.

Saeki is directed to an interactive cable TV system wherein a subscriber can input requests for specific content to a center (1), and after receipt of such input, the center can then transmit the requested content based on the input. The cable TV system delivers cable television programming. Each subscriber has an input device at the subscriber's output station. The subscriber can input to request information regarding stock quotes, weather, etc., and the subscriber station transmits such request to the center. Upon receiving such requests, the center delivers the requested generic information to the subscriber station, which then displays the information to the subscriber at an output device. The requested information consists of text menus relating to stock quotes, weather, etc. The subscriber can make an additional selection based on the new menu choices. The process can be repeated if the subscriber wishes to access further sub-menus of content. Saeki fails to teach each step of the methods set forth in claims 5 and 18-21.

a) Claim 5

Claim 5, as amended, recites "storing subscriber specific data of said subscriber at a subscriber station." Saeki's text menus are not "subscriber specific data." Instead, they are generally available and applicable to all subscribers, and include such general information as stock quotes and weather reports. Nothing about the text menu data is specific to the subscriber.

Claim 5, as amended, recites "receiving at said subscriber station at least one first instruct signal which is effective to cause said subscriber station to present a first subscriber specific recommendation to said subscriber based on said stored subscriber specific data." Saeki does not

41

teach such a "subscriber specific recommendation," nor does it teach "presenting" the recommendation. In Saeki, the only content presented to the subscriber is (1) traditional television programming and (2) subscriber-selected text menus. None of such content is based on subscriber specific data stored at the receiver station. The text menus do not include any recommendations, and thus they do not include any subscriber specific recommendations. Absolutely nothing in Saeki teaches or suggests a recommendation.

Saeki also does not teach "receiving subscriber input at said subscriber station responsive to said first subscriber specific recommendation." Because Saeki does not teach a recommendation, Saeki does not teach an input based on the recommendation.

Claim 19, as amended, depends from claim 5, and claim 20, as amended, now depends from claim 19. Thus, in addition to the reasons described below, Saeki does not anticipate claims 19 and 20 for at least the same reasons that Saeki does not anticipate claim 5, as discussed above.

Claim 19 recites the method of claim 5 "wherein said instruct signal is received from a first transmitter, and said subscriber specific recommendation is further based on information specific to said first transmitter." As described above, Saeki does not teach a subscriber specific recommendation. It also does not teach a subscriber specific recommendation based on information specific to the first transmitter.

Claim 20 recites the method of claim 19 "wherein said first transmitter receives at least a portion of said instruct signal from a second transmitter, and said subscriber specific recommendation is further based on information specific to said second transmitter." Saeki does not teach a second transmitter that transmits instruct signals to a subscriber via the first transmitter. Nor does it teach or suggest a subscriber specific recommendation that is based on information specific to a second transmitter.

b)   **Claims 18 & 21**

Claims 18 and 21 are independent claims, and the Examiner made no attempt to show how Saeki anticipates these claims. Applicants therefore respectfully submit that the Examiner has failed

to establish a *prima facie* case of anticipation with respect to claims 18 and 21. (Applicants suggest the possibility that the Examiner intended to state that Saeki anticipates only claim 5 and its dependent claims 19-20, rather than the additional independent claims 18 and 21. This is further suggested by the fact that in the relevant section of the Office action on pp. 76-77, the Examiner seems to treat claims 18-21 together in a mere six lines of analysis but only quotes from claims 19 and 20.)

Regardless, claim 18 recites a and "completing a second control signal based on said received subscriber response and said generated information." Saeki does not teach completing a second control signal based on said received subscriber response *and said generated information,"* wherein the information is generated by processing data in response to a first control signal, as recited claim 18.

Claim 21, as amended, recites "outputting said selected at least one receiver specific benefit datum in a time of specific relevance during said outputting of said video in response to at least a second control signal, wherein said outputting of said video and said outputting of said selected at least one receiver specific benefit datum explain said benefit of said offer to said specific user of said video receiver station." As described above, Saeki does not teach or suggest the outputting of a subscriber or receiver specific datum that explains the benefit of an offer.

For at least these reasons, Saeki does not anticipate or suggest claims 5 and 18-21.

3) Block Does Not Anticipate Claim 18

Claim 18 stands rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 4,225,884 to Block et. al. (Block). Block is directed to a subscription cable television system that allows subscribers to be charged for programs actually viewed. Scrambled television signals along with embedded television program identification codes are received at the subscriber station. When a subscriber watches a television program, the subscriber's receiver station unscrambles and displays the television program and stores the program identification code in memory at the subscriber station. Periodically, a remote station sends the subscriber station a signal that causes the subscriber

station to transmit to the remote station the stored program identification codes of the programs actually viewed by the subscriber. If the subscriber station runs out of storage space, the subscriber station can contact the remote station to allow the subscriber station to upload the codes. The remote station also periodically provides the receiver stations with unscramble codes necessary to unscramble the television programs. Finally, Block enables the subscriber to selectively enable or disable categories of content by adjusting an input selector at the receiver station.

Claim 18 recites "receiving [at said receiver station] a first control signal and at least one of video and audio." The Examiner cites Fig. 4 (receiver station) and col. 3, ll. 25-39 as anticipating this step. The Examiner additionally cites "ACTC" as teaching "first control signals," "SAIDD" as teaching "video," and the same "SAIDD" as teaching audio. Applicants cannot find either "ACTC" or "SAIDD" anywhere in the Block specification. The Block specification does include, however, the acronyms "SAUD" (scrambled audio signal), "ACS" (audio scramble control signal), "ACC" (accept signal), "TPC" (program code), and a "TSC" (transmitted scramble code). Applicants cannot determine whether the Examiner intended to show the "first control signal" using "ACS," "ACC," "TPC," "TSC," or some other signal.

To show "generating information by processing [subscriber] data at said receiver station in response to said first control signal," the Examiner cites "RBCC" and Fig. 4, element 26 (control and storage unit). Applicants also cannot locate "RBCC" anywhere in the Block specification. Applicants assume that by citing the control and storage unit, the Examiner is referring to the data stored at the signal storage device, namely the television program identification codes or category codes. However, it is not clear if the codes are intended to be cited as the "generat[ed] information" or the "process[ed] data," and it remains unclear what is intended to be shown as the "control signal."

To show "receiving a subscriber response to said delivered at least one of video and audio," Examiner cites Fig. 4, elements 26 (control and storage unit) and 32 (access unit). These elements of Figure 4 do not teach a subscriber response. With the possible exceptions of selecting channels and

eligibility (i.e. parental control) settings, the subscriber does not make any inputs. Selecting channels is not a response to previously delivered audio and video; rather, it is a request for different audio and video. Selecting an eligibility setting also is not a response to delivered audio and video, as such selections are made *prior to* and *in anticipation of* future delivered audio and video (as are channel selections, for that matter). Applicants assume that by citing elements 26 and 32, the Examiner refers to the transferal of the program identification codes from the storage unit to the access unit. Because the identification codes are stored automatically by the receiver station and not actively input by the subscriber, this transfer does not involve an input by the subscriber. Therefore, the transfer does not teach this element of claim 18.

To show "controlling said receiver station in accordance with said second control signal," the Examiner again cites the control and storage unit and access unit, as well as col. 7, ll. 25-65. The cited text discusses how the access unit receives program identification codes from the storage unit and supplies the receiver station with new unscramble codes for unscrambling future programming. Assuming the "second control signal" here is the new unscramble codes, applicants again cannot determine how the new unscramble codes are based on an inputted subscriber response.
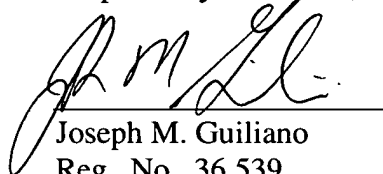
For at least these reasons, Block does not anticipate claim 18.

45

III. CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome or rendered moot. Further, all pending claims are patentably distinguishable over the prior art of record, taken in any proper combination. Reconsideration and allowance of the instant application are respectfully requested.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such informalities.

Respectfully submitted,

Date: March 6, 2003
FISH & NEAVE
1251 Avenue of the Americas
New York, New York 10020

Joseph M. Guiliano
Reg. No. 36,539
Phone No. 212-596-9000
Fax No. 212-596-9090

Appendix A

Applicants' Marked-Up Claim Language

2.   (Four Times Amended)   A method of processing signals at a receiver station based on at least one information transmission, the method comprising the steps of:

(a)   receiving [some] information content and a first control signal in said at least one information transmission, said information content describing at least one of a product and a service;

(b)   generating a benefit datum [by processing subscriber data] in response to said first control signal <u>by processing subscriber specific data</u>;

(c)   delivering said information content and said benefit datum at an output device at said receiver station<u>, wherein said information content and said benefit datum explain a benefit of acquiring said product or service specific to said subscriber</u>;

(d)   [inputting] <u>receiving</u> a subscriber <u>input after said step of delivering; and</u> [reaction to at least one of said delivered information content and said delivered benefit datum;]

(e)   [generating a second control signal that controls said receiver station based on said inputted subscriber reaction; and (f)] controlling said receiver station based on said [inputted] subscriber <u>input</u> [reaction].

3.   (Twice Amended)   The method of claim 2, further comprising the step of storing said subscriber <u>specific data</u> [datum] at a computer at said receiver station[, said subscriber datum being an investment datum].

────4.   ─(Twice-Amended)─   The-method of claim-2-<u>wherein-said-subscriber-input-modifies</u> <u>said subscriber specific data</u> [, further comprising the step of programming said computer to respond to said control signal].

5. (Three Times Amended) A method of communicating [subscriber specific data of a subscriber from a subscriber station of said subscriber] recommendations to a subscriber [at least one remote station], said method comprising the steps of:

(1) storing subscriber specific data of said subscriber at [said] a subscriber station;

(2) receiving at said subscriber station at least one first instruct signal which is effective to cause said subscriber station to present a first subscriber specific recommendation to said subscriber based on said stored subscriber specific data [generate a control signal based on a subscriber reaction of said subscriber to at least one of a recommendation and an offer, each of said at least one of said recommendation and said offer including a receiver specific datum];

[(3) generating, under direction of instructions of said at least one instruct signal, at said subscriber station, said subscriber specific data;]

[(4)] (3) receiving subscriber input at said subscriber station responsive to said first subscriber specific recommendation; and [said subscriber reaction to said at least one of said recommendation and said offer at said subscriber station;]

[(5)] (4) [transferring said subscriber specific data] transmitting information [from said subscriber station] to [said at least one] a remote station based on said subscriber input [step of receiving said subscriber reaction].

9. (Three Times Amended) The method of claim 5, said method further comprising receiving at said subscriber station at least one second instruct signal which is effective to cause said subscriber station to present a second subscriber specific recommendation based on said subscriber input and said stored subscriber specific data.

[A method of controlling at least one of a plurality of receiver stations each of which includes one of a broadcast receiver and a cablecast receiver, at least one processor, a signal detector, said signal detector adapted to detect signals within one of a broadcast transmission and a cablecast transmission, and said at least one processor programmed to respond to said signals, said method of

2

controlling comprising the steps of: (1) receiving at one of a broadcast transmitter station and a cablecast transmitter station an instruct signal which is effective at said at least one of said plurality of receiver stations to generate a first control signal based on a subscriber reaction to at least one of a recommendation and an offer, each of said at least one of said recommendation and said offer including a receiver specific benefit datum; (2) transferring said instruct signal from said transmitter station to a transmitter; (3) receiving at least one second control signal at said transmitter station, said second control signal addressing said instruct signal to said processor of said at least one of said plurality of receiver stations; and (4) transferring said at least one second control signal from said transmitter station to said transmitter, said transmitter station doing one of broadcasting and cablecasting said instruct signal and said at least one second control signal to said at least one of said plurality of receiver stations.]

10.   (Twice Amended)   The method of claim 2 [9], wherein said information content comprises a commercial [at least one of said instruct signal and said second control signal is embedded in the non-visible portion of a television signal].

11.   (Three Times Amended)   The method of claim 10 [9], wherein said commercial is stored at said receiver station prior to said step of delivering [at least one second control signal identifies at least two of said plurality of receiver stations asynchronously and each of said at least two receiver stations receive and respond to said instruct signal asynchronously].

12.   (Three Times Amended)   The method of claim 10 [9], wherein said commercial is selected from a plurality of commercials based on said subscriber specific data [a switch communicates signals selectively between a transmitter station receiver and at least one of a memory and a recorder, and said transmitter, said method further comprising detecting a third control signal which is effective at the transmitter station to cause communication].

3

13. (Twice Amended) The method of claim 11 [9], wherein said step of delivering comprises delivering said commercial from storage at said receiver station [a controller controls a switch to communicate to said transmitter a selected signal, further comprising detecting a third control signal which is effective at the transmitter station to cause transmission].

14. (Twice Amended) The method of claim 13 wherein said step of delivering is performed based on a schedule [9, further comprising transmitting to a receiver station at least one datum that designates a time of transmission of said instruct signal].

16. (Three Times Amended) The method of claim 14 [9], wherein said schedule is stored at said receiver station [at least one of said plurality of receiver stations at least one of detects the presence of said at least one second control signal and responds to said instruct signal on the basis of a signal location in an information transmission, said method further comprising the step of causing at least some of at least one of said at least one second control signal and said instruct signal to be transmitted in said location].

18. (Three Times Amended) A method of processing signals at a receiver station based on one of at least one broadcast transmission and at least one cablecast transmission, the method comprising the steps of:

(a) receiving at said receiver station a first control signal and at least one of video and audio in said at least one transmission;

(b) generating information by processing data at said receiver station [subscriber data] in response to said first control signal;

(c) delivering said at least one of video and audio at an output device at said receiver station;

4

(d)   [inputting] <u>receiving</u> a subscriber response to said delivered at least one of video and

audio;

(e)   [generating] <u>completing</u> a second control signal based on said [inputted] <u>received</u>

subscriber response and said generated information; and

(f)   controlling said receiver station in accordance with said second control signal.

19.   (Twice Amended)   The method of claim 5, wherein <u>said instruct signal is received</u>

<u>from a first transmitter, and said subscriber specific recommendation is further based on information</u>

<u>specific to said first transmitter</u> [each of said at least one of said recommendation and said offer is

transmitted from a transmitter to said subscriber station and is specific to said transmitter].

20.   (Twice Amended)   The method of claim <u>19, wherein said first transmitter receives</u>

<u>at least a portion of said instruct signal from a second transmitter, and said subscriber specific</u>

<u>recommendation is further based on information specific to said second transmitter</u> [5, wherein each

of said at least one of said recommendation and said offer is transmitted to said subscriber station in

one of a broadcast transmission and a cablecast transmission and is specific to said one of said

broadcast transmission and said cablecast transmission].

21.   (Amended)   A method of delivering a receiver specific [recommendation] <u>output</u> at

a video receiver station <u>to explain a benefit of an offer made to a specific user through said video</u>

<u>receiver station</u> including:

        <u>receiving at least one information transmission at said video receiver station</u>, said <u>at least one</u>

information transmission including <u>video,</u> generally applicable information and a [plurality of

recommendation] control <u>signal</u> [signals, said generally applicable information including (1) some of

said receiver specific recommendation and (2) video to serve as a basis on which to present said

some of said receiver specific recommendation, at least said [plurality of recommendation] control

signal [signals] being received from at least one remote transmitter station];

storing [at least some of] said generally applicable information and said [plurality of

recommendation] control signal [signals] at said video receiver station;

outputting said video at a video monitor;

selecting at least one receiver specific benefit datum to output [by processing] from said

generally applicable information in accordance with [at least a first one of] said [plurality of

recommendation] control signal [signals]; and

outputting said selected at least one receiver specific benefit datum in [a series of times] a

time of specific relevance during said outputting of said video in response to at least a second [one of

said plurality of recommendation] control [signals] signal, wherein said outputting of said video and

said outputting of said selected at least one receiver specific benefit datum explain said benefit of

said offer to said specific user of said video receiver station[; and

producing said some of said receiver specific recommendation at a specific video location at

said video monitor during a first of said series of times of specific relevance].

Appendix B

Chart Identifying Support for Each Claim in the Specification

2. A method of processing signals at a receiver station based on at least one information transmission, the method comprising the steps of:	Page 15, lines 7 - 9	In the present invention, particular signal processing apparatus (hereinafter called the "signal processor") detect signals and, in accordance with ... the signals ...
	Page 15, lines 17 - 19	The input transmissions may be received by means of antennas or from hard-wire connections.
	For example, page 29, lines 4 - 7	Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is configured for simultaneous use with a cablecast input that conveys both television and radio programming and a broadcast television input. \
(a) receiving information content	Page 553, line 11 - Page 554, line 3 (Note: "information content" is supported by the commercials)	Transmitting said SPAM message information at its local intermediate station causes apparatus of each farmer's station to receive and input said information to the signal processor, 200, of said station, and receiving said information causes the signal processor, 200, of said station to cause its tuner, 215A, to commence receiving the transmission of the particular second television channel of its local intermediate station; to cause apparatus of said station to interconnect to transfer the transmission received at said tuner, 215A, to a selected video recorder/player, 217 or 217A; and to cause said video recorder, 217 or 217A, to prepare to record selected programming. Then after an interval that is long enough for each of its subscriber stations to prepare a selected recorder/player, 217 or 217A, to record selected programming, each computer, 73, causes said recorder, 78, to commence playing. In so doing, ...each computer, 73, causes twenty-six program units of commercial spot programming to be transmitted, in series, to its subscriber stations. Each program unit is ... addressed to URS signal processors, 200. Automatically, the signal processor, 200, of each station causes its recorder/players, 217 and 217A, in the fashion that applied to computer, 73, and recorders, 76 and 78, in example #8, to record and then to organize to play the selected programming of the selected commercial spots of its station.
and a first control signal in said at least one information transmission,	Page 554, lines 22-32 (Note: "first control signal" is supported by the second-cueing message (#11))	Then a particular second-cueing message (#11) that is embedded at the end of the prerecorded national and local segment of the "Farm Plans of Europe" programming at the recorder, 76, of each local intermediate station and that is addressed to URS signal processors, 200, is transmitted and causes the signal processor, 200, of each farmer's station to

		separate the apparatus of its station from the master channel transmission and second television of its local intermediate station; to cause its recorder/players, 217 and 217A, to commence playing their prerecorded commercial spot programming in the fashion of example #8
	Page 59, lines 29 - 33	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.
said information content describing at least one of a product and a service;	Page 555, lines 2-5 (emphasis added)	Playing each commercial spot causes the combined medium information of said spot to display information of a particular commercial *product* such as a truck or a particular *service* such as a software package
(b) generating a benefit datum in response to said first control signal by processing subscriber specific data;	Page 554, line 22 - Page 555, line 13	Then a particular second-cueing message (#11) that is embedded at the end of the prerecorded national and local segment of the "Farm Plans of Europe" programming at the recorder, 76, of each local intermediate station and that is addressed to URS signal processors, 200, is transmitted and causes the signal processor, 200, of each farmer's station ... to cause its recorder/players, 217 and 217A, to commence playing their prerecorded commercial spot programming in the fashion of example #8.... Playing each commercial spot causes the combined medium information of said spot to display information of a particular commercial product such as a truck or a particular service such as a software package; to access the prerecorded "A:PLANTING.DAT" disk file information of a farmer's crop planting plan; in a fashion well known in the art, to generate cost/benefit financial analysis of the incremental benefit of acquiring and using the displayed product or service (by comparison with the farmer's existing product or service of like kind); and to display (or otherwise output) information of said analysis (if said analysis results in a positive net present benefit).
	Page 551, lines 12-14 (Note: "subscriber specific data" is supported by the farmer's crop planting plan)	Automatically, under control of its received program instruction set, the microcomputer, 205, of its farmer's station records complete information of said farmer's crop planting plan at its A: disk in a file named PLANTING.DAT.
	Page 550, line 30 - Page 551, line 7	The specific "optimal" crop planting plans so computed vary from station to station and include budget information of projected revenues, expenses, and profits. The plan of one particular farmer calls for planting forty acres of oats and sixty acres of wheat and projects profits of fifteen thousand units of local currency. The plan of a particular second farmer calls for planting fifteen acres of broad beans and five acres of tomatoes and projects profits of thirty thousand units of local currency. The plan of a particular

8

		third farmer calls for planting ten acres of red tulips and two acres of blue tulips and projects profits of twenty thousand units of local currency.
(c) delivering said information content and said benefit datum at an output device at said receiver station; wherein said information content and said benefit datum explain a benefit of acquiring said product or service specific to said subscriber;	Page 554, line 22 - Page 555, line 13 (emphasis added)	Then a particular second-cueing message (#11) that is embedded at the end of the prerecorded national and local segment of the "Farm Plans of Europe" programming at the recorder, 76, of each local intermediate station and that is addressed to URS signal processors, 200, is transmitted and causes the signal processor, 200, of each farmer's station to separate the apparatus of its station from the master channel transmission and second television of its local intermediate station; to cause its recorder/players, 217 and 217A, to commence playing their prerecorded commercial spot programming in the fashion of example #8, and to cause apparatus of its station to interconnect so as to commence generating and *displaying (or otherwise outputting)* combined medium programming of the programming transmitted by its selected recorder/player, 217 or 217A. *Playing each commercial spot* causes the combined medium information of said spot to display information of a particular commercial product such as a truck or a particular service such as a software package; to access the prerecorded "A:PLANTING.DAT" disk file information of a farmer's crop planting plan; in a fashion well known in the art, to generate cost/benefit financial analysis of the incremental benefit of acquiring and using the displayed product or service (by comparison with the farmer's existing product or service of like kind); and to *display (or otherwise output)* information of said analysis (if said analysis results in a positive net present benefit).
(d) receiving a subscriber input after said step of delivering; and	Page 555, lines 14-23	After studying his specific crop planting plan and associated budget projections, his associated sensitivity analyses, and the output information of the selected commercial spots of his station, each farmer loads and runs his prerecorded module, TELEPHON.EXE, in a fashion well known in the art. Under control of the instructions of the TELEPHON.EXE module of his station controlling the operation of his signal processor, 200, each farmer enters information at his local input, 225, that modifies the information of his file, "PLANTING.DAT," to suit his own wishes and inclinations then executes particular information of said TELEPHON.EXE module that causes the instructions of said module to cause his signal processor, 200, to transmit the information of his "PLANTING.DAT" file, via telephone network in the fashion of example #10, to a computer at a particular remote data collection station.
(e) controlling said receiver station based on said subscriber input.	Page 555, lines 19-29	Under control of the instructions of the TELEPHON.EXE module of his station controlling the operation of his signal processor, 200, each farmer enters information at his local input, 225, that modifies the information of his file, "PLANTING.DAT," to suit his own wishes and inclinations then executes particular information of said

		TELEPHON.EXE module that causes the instructions of said module to cause his signal processor, 200, to transmit the information of his "PLANTING.DAT" file, via telephone network in the fashion of example #10, to a computer at a particular remote data collection station.

3. The method of claim 2, further comprising the step of storing said subscriber specific data at a computer at said receiver station.	Page 551, lines 12-14	...the microcomputer, 205, of its farmer's station records complete information of said farmer's crop planting plan at its A: disk in a file named PLANTING.DAT.
	Page 469, lines 13-14	...so-called "floppy disk" that is loaded at the A: disk drive at said microcomputer, 205.
	Page 550, line 30 - Page 551, line 7	The specific "optimal" crop planting plans so computed vary from station to station and include budget information of projected revenues, expenses, and profits. The plan of one particular farmer calls for planting forty acres of oats and sixty acres of wheat and projects profits of fifteen thousand units of local currency. The plan of a particular second farmer calls for planting fifteen acres of broad beans and five acres of tomatoes and projects profits of thirty thousand units of local currency. The plan of a particular third farmer calls for planting ten acres of red tulips and two acres of blue tulips and projects profits of twenty thousand units of local currency.

4. The method of claim 2 wherein said subscriber input modifies said subscriber specific data.	Page 555, lines 14-23	After studying his specific crop planting plan and associated budget projections...each farmer enters information at his local input, 225, that modifies the information of his file, "PLANTING.DAT," ...
	See also Page 556, lines 12-16 (emphasis added)	Then ... the cycle of generating and communicating information of farmers is repeated using the refined variables. Once again farmers receive optimal planting plans, given the new refined variables, and *respond with their own plans....*

5. A method of communicating recommendations to a subscriber, said method comprising the steps of:	Page 552, lines 20-30	Automatically, in the fashion of example #10, the display and output apparatus of each farmer's station commences displaying and outputting generally applicable television picture image, sound, and print information of a crop planting plan combined periodically with related locally generated specific crop planting plan information of its specific farmer. Automatically, crop and budget information of the aforementioned optimal crop planting plan of each farmer is explained in the outputted the generally applicable programming and is displayed, emitted in sound, and printed at the station of each farmer.
	Page 548, lines 6-22	And receiving said additional SPAM messages causes

		apparatus at each subscriber station of a farmer to display or otherwise output (or to cease displaying or otherwise outputting) combined medium program of said national and local segment of the "Farm Plans of Europe" program. Automatically, the display and output apparatus of each farmer's station commences displaying and outputting television picture image, sound, and print information of the national and local agricultural, economic, tax, and employment subsidy policies combined periodically with related locally generated information of specific relevance to each farmer. So executing a specific contained program instruction set causes each microcomputer, 205, to generate a specific so-called "optimal" solution for its particular farmer's problem of deciding what mix of crops is most profitable to grow on his property, given his resources.
:	Page 534, lines 1 - 5	Each farmer has a subscriber station that is identical to the station of Fig. 7 except that each station has two television recorder/players that are recorder/players, 217 and 217A; two television tuners, 215 and 215A; and a laser disk player, 232.
(1) storing subscriber specific data of said subscriber at a subscriber station;	Page 534, lines 4-13 (Note: "subscriber specific data" is supported by the information stored at MY_FARM.DAT)	Particular farm information of the specific farm of each farmer is recorded in a file named MY_FARM.DAT on a disk at the A: disk drive of the microcomputer, 205, of each station. The recorded data includes, for example, data of the number and size of the individual parcels of property of the farmer's farm, the soil conditions of said parcels, the aspects of said parcels with respect to sunlight and shade, the history of crop rotation of said parcels, the farm equipment of said farmer, and the financial resources of said farmer.
(2) receiving at said subscriber station at least one first instruct signal	Page 548, lines 1-3 (Note: "first instruct signal" is supported by the first SPAM message)	Receiving the particular first SPAM message of its local intermediate station causes apparatus at the subscriber station...
	Page 547, lines 19-26	In the fashion of example #9, each local intermediate station detects the particular SPAM message of its recorder, 76, at its decoder, 77, and receiving its particular message causes each station to embed and transmit end of file signal information then a particular first SPAM message that is addressed to URS microcomputers, 205, and that contains complete information of its particular program instruction set.
	Page 59, lines 29 - 33	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.

11

which is effective to cause said subscriber station to present a first subscriber specific recommendation to said subscriber	Page 548, lines 1-22 (Note: "first subscriber specific recommendation" is supported by the specific "optimal" crop planting plan)	Receiving the particular first SPAM message of its local intermediate station causes apparatus of the subscriber station of each farmer to execute the contained program instruction set of said message at the microcomputer, 205, of said station and to commence generating the specific combined medium output information of its subscriber station. And receiving said additional SPAM messages causes apparatus at each subscriber station of a farmer to display or otherwise output (or to cease displaying or otherwise outputting) combined medium program of said national and local segment of the "Farm Plans of Europe" program. Automatically, the display and output apparatus of each farmer's station commences displaying and outputting television picture image, sound, and print information of the national and local agricultural, economic, tax, and employment subsidy policies combined periodically with related locally generated information of specific relevance to each farmer. So executing a specific contained program instruction set causes each microcomputer, 205, to generate a specific so-called "optimal" solution for its particular farmer's problem of deciding what mix of crops is most profitable to grow on his property, given his resources.
	Page 550, line 30 - Page 551, line 3	The specific "optimal" crop planting plans so computed vary from station to station and include budget information of projected revenues, expenses, and profits. The plan of one particular farmer calls for planting forty acres of oats and sixty acres of wheat and projects profits of fifteen thousand units of local currency. The plan of a particular second farmer calls for planting fifteen acres of broad beans and five acres of tomatoes and projects profits of thirty thousand units of local currency. The plan of a particular third farmer calls for planting ten acres of red tulips and two acres of blue tulips and projects profits of twenty thousand units of local currency.
	Page 552, lines 20-30	Automatically, in the fashion of example #10, the display and output apparatus of each farmer's station commences displaying and outputting generally applicable television picture image, sound, and print information of a crop planting plan combined periodically with related locally generated specific crop planting plan information of its specific farmer. Automatically, crop and budget information of the aforementioned optimal crop planting plan of each farmer is explained in the outputted the generally applicable programming and is displayed, emitted in sound, and printed at the station of each farmer.
based on said stored subscriber specific data;	Page 549, line 32 - Page 550, line 10	Then using linear programming techniques that are well known in the art, each farmer's microcomputer, 205, under control of the particular program instruction set generated and transmitted by its local intermediate station, computes its particular farmer's "optimal" crop planting plan by making reference to said farmer's specific data that

12

		includes, for example, the number and size of the individual parcels of property of the farmer's farm, the soil conditions of said parcels, the aspects of said parcels with respect to sunlight and shade, the history of crop rotation of said parcels, the farm equipment of said farmer, and the financial resources of said farmer; by using said data as so-called "constraints"; and by applying information of said program instruction set.
	Page 534, lines 4-13	Particular farm information of the specific farm of each farmer is recorded in a file named MY_FARM.DAT on a disk at the A: disk drive of the microcomputer, 205, of each station. The recorded data includes, for example, data of the number and size of the individual parcels of property of the farmer's farm, the soil conditions of said parcels, the aspects of said parcels with respect to sunlight and shade, the history of crop rotation of said parcels, the farm equipment of said farmer, and the financial resources of said farmer.
(3) receiving subscriber input at said subscriber station responsive to said first subscriber specific recommendation; and	Page 555, lines 14 - 23	After studying his specific crop planting plan and associated budget projections, his associated sensitivity analyses, and the output information of the selected commercial spots of his station, each farmer loads and runs his prerecorded module, TELEPHON.EXE, in a fashion well known in the art. Under control of the instructions of the TELEPHON.EXE module of his station controlling the operation of his signal processor, 200, each farmer enters information at his local input, 225, that modifies the information of his file, "PLANTING.DAT," to suit his own wishes and inclinations ...
(4) transmitting information to a remote station based on said subscriber input.	Page 555, lines 21 - 29 (See also Page 555, lines 14-23, above)	... each farmer ... then executes particular information of said TELEPHON.EXE module that causes the instructions of said module to cause his signal processor, 200, to transmit the information of his "PLANTING.DAT" file, via telephone network in the fashion of example #10, to a computer at a particular remote data collection station.

9. The method of claim 5, said method further comprising receiving at said subscriber station at least one second instruct signal which is effective to cause said subscriber station to present a second subscriber specific recommendation based on said subscriber input and said stored subscriber specific data.	Page 556, lines 12-18 (Note: "second subscriber specific recommendation" is supported by the optimal planting plan based on the refined variables)	Then, at 3:59 PM, on Thursday, February 18, 2027, the cycle of generating and communicating information of farmers is repeated using the refined variables. Once again farmers receive optimal planting plans, given the new refined variables, and respond with their own plans, causing data to be aggregated at the computer of said European master network origination and control station.
	Page 555. line 30 - Page	Over the course of a particular time such as two days,

13

	556, line 11	computers at remote data collection stations receive data automatically from each farmer of said nations which data indicates the specific quantity of each crop that each farmer expects to harvest during the 2027 growing season. Automatically, the received data is aggregated, in a fashion well known in the art, at the computer of said European master network origination and control station which allows planners at said station to modify and refine the variables of the national intermediate generation set of said station, especially the projected market prices at which farmers are projected to be able to sell each alternate crop. The aggregated data is also distributed automatically to computers at the national and local intermediate transmission stations, enabling national and local planners to vary and refine the policy variables of their stations' local-formula-and-item information.
	See Page 548, lines 1-3 (Note: "second instruct signal" is supported by the instruct signal from step (2) of claim 5 when the cycle is repeated to generate a second optimal planting plan.)	Receiving the particular first SPAM message of its local intermediate station causes apparatus at the subscriber station...
	See also Page 548, lines 1-22	Receiving the particular first SPAM message of its local intermediate station causes apparatus of the subscriber station of each farmer to execute the contained program instruction set of said message at the microcomputer, 205,.... So executing a specific contained program instruction set causes each microcomputer, 205, to generate a specific so-called "optimal" solution for its particular farmer's problem of deciding what mix of crops is most profitable to grow on his property, given his resources.

10. The method of claim 2, wherein said information content comprises a commercial.	Page 553, line 27 - Page 554, line 3	...each computer, 73, causes twenty-six program units of commercial spot programming to be transmitted, in series, to its subscriber stations. Each program unit is ... addressed to URS signal processors, 200. Automatically, the signal processor, 200, of each station causes its recorder/players, 217 and 217A, in the fashion that applied to computer, 73, and recorders, 76 and 78, in example #8, to record and then to organize to play the selected programming of the selected commercial spots of its station.

11. The method of claim 10, wherein said commercial is stored at said receiver station prior to said step of delivering.	Page 553, line 33 - Page 554, line 3 (emphasis added)	Automatically, the signal processor, 200, of each station causes its recorder/players, 217 and 217A, in the fashion that applied to computer, 73, and recorders, 76 and 78, in example #8, to *record* and then to organize to play the selected programming of the selected commercial spots

14

		of its station. Automatically, a decoder, 282A, at the tuner, 215A,
	Page 554, lines 27-32 (Note: the "playing" occurs after the "record" step cited above; see Page 554 generally.)	addressed to URS signal processors, 200, is transmitted and causes the signal processor, 200, of each farmer's station to separate the apparatus of its station from the master channel transmission and second television of its local intermediate station; to cause its recorder/players, 217 and 217A, to commence *playing* their prerecorded commercial spot

12. The method of claim 10, wherein said commercial is selected from a plurality of commercials based on said subscriber specific data.	Page 551, line 28 - Page 552, line 4	...microcomputer, 205, automatically identifies four commercial spots that are of a particular possible highest potential value to its farmer. For example, by analyzing equipment depreciation information, one microcomputer, 205, determines that its farmer has an old truck, a new tractor, and a new disk harrow and selects, as one of its four commercials, the commercial of the new truck. Meanwhile, another microcomputer, 205, determines that its farmer has an old truck, a new tractor, and a old disk harrow and selects the commercial of the new truck because a new truck is costlier than a disk harrow and may be more valuable to its farmer.
	Page 553, lines 27-29	...each computer, 73, causes twenty-six program units of commercial spot programming to be transmitted, in series, to its subscriber stations.
	See also Page 553, line 33 - Page 554, line 3	Automatically, the signal processor, 200, of each station causes its recorder/players, 217 and 217A, in the fashion that applied to computer, 73, and recorders, 76 and 78, in example #8, to record and then to organize to play the selected programming of the selected commercial spots of its station. Automatically, a decoder, 282A, at the tuner, 215A,

13. The method of claim 11, wherein said step of delivering comprises delivering said commercial from storage at said receiver station.	Page 553, line 33 - Page 554, line 3 (emphasis added)	Automatically, the signal processor, 200, of each station causes its recorder/players, 217 and 217A, in the fashion that applied to computer, 73, and recorders, 76 and 78, in example #8, to *record* and then to organize to play the selected programming of the selected commercial spots of its station. Automatically, a decoder, 282A, at the tuner, 215A,
	Page 554, lines 27-32 (emphasis added)	separate the apparatus of its station from the master channel transmission and second television of its local intermediate station; to cause its recorder/players, 217 and 217A, to commence *playing* their *prerecorded commercial spot* programming in the fashion of example #8, and to cause

14. The method of claim 13 wherein said step of delivering is performed	Page 552, lines 4-7	old truck, a new tractor, and a old disk harrow and selects the commercial of the new truck because a new truck is costlier than a disk harrow and may be more valuable to its

based on a schedule.		farmer. Automatically, the microcomputer, 205, of each station inputs to the signal processor, 200, of its station particular schedule information of its four identified commercial spots.
	Page 553, line 33 - Page 554, line 3	station causes its recorder/players, 217 and 217A, in the fashion that applied to computer, 73, and recorders, 76 and 78, in example #8, to record and then to organize to play the selected programming of the selected commercial spots of its station. Automatically, a decoder, 282A, at the tuner, 215A, of each station detects each datum of program unit
	Page 554, lines 7-11 & 30-32	a selected recorder/player, 217 or 217A, to record selected programming then, after a particular last unit is received, to organize the recorded programming to play according to its schedule previously inputted by its microcomputer, 205. In due course, the instructions of the program commence playing their prerecorded commercial spot programming in the fashion of example #8, and to cause apparatus of its station to interconnect so as to commence

16. The method of claim 14, wherein said schedule is stored at said receiver station.	Page 552, lines 4-7	station inputs to the signal processor, 200, of its station particular schedule information of its four identified commercial spots.
	Page 15, lines 7-12	apparatus (hereinafter called the "signal processor") detect signals and, in accordance with instructions in the signals and preprogramming in the signal processor, decrypt and/or record and/or control station apparatus by means of the signals and/or discard the signals. The apparatus include

18. A method of processing signals at a receiver station based on one of at least one broadcast transmission and at least one cablecast transmission, the method comprising the steps of:	Page 15, lines 7 - 9	In the present invention, particular signal processing apparatus (hereinafter called the "signal processor") detect signals and, in accordance with ... the signals ...
	Page 15, lines 17 - 19	The input transmissions may be received by means of antennas or from hard-wire connections.
	Page 29, lines 4 - 7	Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is configured for simultaneous use with a cablecast input that conveys both television and radio programming and a broadcast television input.
(a) receiving at said	Page 470, lines 9 - 12	At the station of Fig. 7 and 7F (which station is a subscriber station of the intermediate station of Fig. 6), in

16

receiver station		the fashions described above, apparatus is caused to receive the particular transmission of said program ...
a first control signal	Page 384, line 30 - Page 385, line 2 (Note: "first control signal" is supported by the data-module-set message (#10) embedded in program unit Q)	Receiving the information of the particular data-module-set message (#10) of the computer, 73, of its station causes each generator, 82, to embed said information in the normal transmission location of the programming of Q
	See Page 482, lines 27-31	Then said studio transmits said transmit-data-module-set message (#10), causing each intermediate transmission station, including the station of Fig. 6 and said second intermediate transmission station, to transmit its specific data-module-set message (#10), as described above.
	See also Page 481, lines 7 - 9	... the individual SPAM messages of the SPAM information subsequently embedded in the transmission of the programming of Q.
	Page 59, lines 29 - 33	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.
and at least one of video and audio in said at least one transmission;	Page 478, lines 23-26 (emphasis added)	Then said studio ceases transmitting "Exotic Meals of India" programming for a so-called "commercial break" and commences transmitting the conventional television *video and audio* information of program unit Q.
	See also Page 470, lines 1 - 2	... transmits the programming transmission of a particular conventional television program ...
	See also Page 470, lines 14-16	...the audio...and the video information received at said tuner...
	For example, Page 507, lines 5-11 (emphasis added)	Said studio transmits *video* information of said person pointing to the upper left hand corner of the video screen, and the image of "TV568*" appears in said corner. Thus each viewer--including the subscriber of the station of Figs. 7 and 7F, said second subscriber, and said third subscriber-- can see TV568* in the upper left hand corner of the picture on the monitor, 202M, of his station. Said studio then transmits *audio* information of the announcer saying, "your Super Discount manager will see that all the ingredients that you need for your personal 'Exotic Meals of India' fish curry recipe are delivered to you in time for dinner tomorrow. And as a special inducement to enter "TV568*" on your Widget Signal Generator and Local Input now, your manager promises to include one jar of Patak's"...

	See also Page 508, lines 19-27	Then after an interval that is long enough for each subscriber station to emit sound of its specific audio RAM information, said studio transmits audio information of the announcer saying: "Curry Paste. Do it now! Enter 'TV568*' on your Widget Signal Generator and Local Input or call the telephone number that you see on your television screen."
(b) **generating** information	Page 483, lines 9 - 13 (Note: "information" is supported by the directory information of the microcomputer, which enables the accessing of the file "DATA_OF.ITS at the D: RAM disk)	Executing said information causes microcomputer, 205, to place said complete information at a so-called "D:" RAM disk at the RAM of said microcomputer, 205, in a file entitled, at the directory of said disk, "DATA_OF.ITS".
	See page 510, lines 16 - 17	... to access said D:DATA_OF.ITS ...
	See also Page 482, line 32 - Page 483, line 2	Receiving the specific data-module-set message (#10) of its intermediate transmission station causes each ultimate receiver station to record one instance of the DATA_OF.ITS information in said message DATA_OF.ITS" at so-called "RAM disk" memory of the microcomputer, 205, of said station.
	See also Page 11, lines 23 - 27	It is the further purpose of this invention to provide means and methods whereby a simplex point-to-multipoint transmission (such as a television or radio broadcast) can cause simultaneous generation of user specific information at a plurality of subscriber stations.
by processing data at said receiver station	Page 482, line 32 - Page 483, line 2 (Note: "data stored at said receiver station" is supported by DATA_OF.ITS) See also Page 483, lines 9-13, above	Receiving the specific data-module-set message (#10) of its intermediate transmission station causes each ultimate receiver station to record one instance of the DATA_OF.ITS information in said message DATA_OF.ITS" at so-called "RAM disk" memory of the microcomputer, 205, of said station.
	Page 483, lines 2-9	At the station of Figs. 7 and 7F, receiving the data-module-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which includes complete information of the aforementioned data file, DATA_OF.ITS, of said station).
	See also Page 47, lines 16 - 23	Execution segment information operates by invoking preprogrammed operating instructions that exist at each subscriber station apparatus that is addressed. For example, a command to URS microcomputers, 205, to load

18

		and run the contents of the information segment following said command causes each URS microcomputer, 205, to commence processing particular instructions for loading and running that are preprogrammed at each URS microcomputer, 205.
in response to said first control signal;	Page 482, lines 32-35	Receiving the specific data-module-set message (#10) of its intermediate transmission station causes each ultimate receiver station to record one instance of the DATA_OF.ITS information in said message...
(c) delivering said at least one of video and audio at an output device at said receiver station;	Page 507, lines 5-11	Said studio transmits video information of said person pointing to the upper left hand corner of the video screen, and the image of "TV568*" appears in said corner. Thus each viewer--including the subscriber of the station of Figs. 7 and 7F, said second subscriber, and said third subscriber-- can see TV568* in the upper left hand corner of the picture on the monitor, 202M, of his station.
	Page 508, lines 21-27	... said studio transmits audio information of the announcer saying: "Curry Paste. Do it now! Enter 'TV568*' on your Widget Signal Generator and Local Input or call the telephone number that you see on your television screen."
(d) receiving a subscriber response to said delivered at least one of video and audio;	Page 508, lines 29-34	At the station of Figs. 7 and 7F, the subscriber enters TV568* at the keyboard of local input, 225, which causes said input, 225, to transmit the aforementioned process-local-input instruction and said TV568* information to the controller, 20, of the signal processor, 200, of said station.
(e) completing a second control signal based on said received subscriber response and said generated information; and	Page 510, lines 15 - 30 (Note: "second control signal" is supported by the combination of the call-this-number-and-respond-with-"A:SHOPPING.EXE" instructions and the phone number 1-(800) 247-8700)	Receiving said information causes microcomputer, 205, under control of said program instruction set of Q.1, to access said D:DATA_OF.ITS file; to select information from said file of the aforementioned local-automatic-order-taking telephone number of the supermarket chain applicable in the vicinity of the intermediate transmission station of Fig. 6 which is 1- (800) 247-8700; to transmit to controller, 20, particular call-this-number-and-respond-with-"A:SHOPPING.EXE" instructions and information of 1-(800) 247-8700; and to record particular instructions at the recording medium of the disk at the A: disk drive of microcomputer, 205, in a file named "SHOPPING.EXE". Receiving said call-this-number-and-respond-with-"A:SHOPPING.EXE" instructions and information of 1-(800) 247-8700 causes controller, 20, in the fashion described above, to cause auto dialer, 24, to dial the telephone number, 1-(800) 247-8700.
	Page 509, line 35 - page 510, line 4	Subsequently, so continuing executing instructions of its specific program instruction set of Q.1 or Q.2 causes apparatus at each subscriber station where where TV568* has been inputted to a local input, 225, automatically to telephone a shopping list order.

(f) controlling said receiver station in accordance with said second control signal.	Page 510, lines 26 - 30	Receiving said call-this-number-and- respond-with-"A:SHOPPING.EXE" instructions and information of 1-(800) 247-8700 causes controller, 20, in the fashion described above, to cause auto dialer, 24, to dial the telephone number, 1-(800) 247-8700.

19. The method of claim 5, wherein said instruct signal is received from a first transmitter, and said subscriber specific recommendation is further based on information specific to said first transmitter.	Page 549, line 33 - Page 550, line 550	...each farmer's microcomputer, 205, under control of the particular program instruction set generated and transmitted by its local intermediate station, computes its particular farmer's "optimal" crop planting plan by making reference to said farmer's specific data that includes, for example, the number and size of the individual parcels of property of the farmer's farm, the soil conditions of said parcels, ... and the financial resources of said farmer; by using said data as so-called "constraints"; and by applying information of said program instruction set. Said information that is applied includes ... the specific local income and property tax formulas and local employment subsidy formulas that were incorporated at the local intermediate station of each farmer into the generally applicable information of its received local level intermediate generation set to generate its program instruction set (which is the program instruction set received at said farmer's station).
	Page 547, lines 19-26 (Note: "first transmitter" is supported by the local intermediate station) (emphasis added)	In the fashion of example #9, each *local intermediate station* detects the particular SPAM message of its recorder, 76, at its decoder, 77, and receiving its particular message causes each station to embed and transmit end of file signal information then a particular *first SPAM message that is addressed to URS microcomputers*, 205, and that *contains complete information of its particular program instruction set.*
	Page 545, lines 3-28	Receiving the specific SPAM message of its national intermediate station causes the computer, 73, of each local intermediate station to execute the contained local level intermediate generation set of said message and to generate information of a specific program instruction set in the fashion that executing the intermediate generation set of Q caused different intermediate stations in example #10 to generate their specific program instruction sets of Q.1 or Q.2. Executing the information of its local level set causes the computer, 73, of each local intermediate station to access its specific LOCAL.TAX and LOCAL.EMP files and to compute formula-and-item-of-this-transmission information of specific local income and property tax formulas and local employment subsidy formulas, all given the specific market price information, the projected aggregate amount of farm borrowing, the specific national subsidy formulas and items regarding each alternate crop that national farmers may grow, the specific national tax formulas and depreciation schedules, and the specific national monetary growth and interest rates that are information of its local level intermediate generation set.

		Automatically, each computer, 73, of a local intermediate station incorporates its computed information selectively into selected generally applicable information of said local level intermediate generation set, compiles information, and links information, thereby generating its specific program instruction set.

| 20. The method of claim 19, wherein said first transmitter receives at least a portion of said instruct signal from a second transmitter, and said subscriber specific recommendation is further based on information specific to said second transmitter. | Page 549, line 33 - Page 550, line 29 (emphasis added) | ...each farmer's microcomputer, 205, under control of the particular program instruction set generated and transmitted by its local intermediate station, computes its particular farmer's "optimal" crop planting plan by making reference to said farmer's specific data that includes, for example, the number and size of the individual parcels of property of the farmer's farm...; by using said data as so-called "constraints"; and by applying information of said program instruction set. Said information that is applied includes the specific market price information and projected aggregate amount of farm borrowing transmitted by said European master network control station as generally applicable information in its outputted national level intermediate generation set; the specific national subsidy formulas and items regarding each alternate crop that national farmers may grow, the specific national tax formulas and depreciation schedules, and the specific national monetary growth and interest rates *that were incorporated at the national intermediate station* of each farmer into the generally applicable information of said national level intermediate generation set to generate its local level intermediate generation set; and the specific local income and property tax formulas and local employment subsidy formulas that were incorporated at the local intermediate station of each farmer into the generally applicable information of its received local level intermediate generation set to generate its program instruction set (which is the program instruction set received at said farmer's station). |
| | Page 543, line 20 - Page 544, line 22 | In the mean time, executing their inputted information of said national level intermediate generation set causes the computers, 73, of said national intermediate stations each to generate information of a specific local level intermediate generation set in the fashion that receiving the intermediate generation set of Q caused different intermediate stations to compute and incorporate specific formula-and-item-of-this-transmission information into generally applicable information of the program instruction sets of Q.1 and Q.2 in example #10. Said national level intermediate generation set includes generally applicable information of national agriculture and economic policy information, of local tax formulas and items and employment subsidy formulas, and of farmers' recommended crop planting plans. .... Executing the information of said set causes the computer, 73, of each national intermediate transmission station to access its |

21

		specific NATIONAL.AGI, NATIONAL.TAX, and NATIONAL.MON files and to compute formula-and-item-of-this-transmission information specific subsidy formulas and items regarding each alternate crop that national farmers may grow, regarding specific tax formulas and depreciation schedules, and regarding specific monetary growth and interest rates.... Having computed said formula-and-item-of-this- transmission information, each computer, 73, is caused to incorporate said information selectively into selected generally applicable information of said national level set, thereby generating at each of said computers, 73, a specific local level intermediate generation set that applies to the local intermediate transmission stations of its nation.
	Page 544, line 31 - Page 545, line 2	Receiving ... causes the computer, 73, of each national intermediate station to embed in the normal location of its particular second television channel transmission and to transmit a particular SPAM message that is addressed to ITS computers, 73, and that contains information segment information of its specific local level intermediate generation set.
	Page 545, lines 3-11 (See also pp. 378-380).	Receiving the specific SPAM message of its national intermediate station causes the computer, 73, of each local intermediate station to execute the contained local level intermediate generation set of said message and to generate information of a specific program instruction set in the fashion that executing the intermediate generation set of Q caused different intermediate stations in example #10 to generate their specific program instruction sets of Q.1 or Q.2.

21. A method of delivering a receiver specific output at a video receiver station	Page 12, lines 3 - 9	It is the further purpose of this invention to provide means and methods whereby a simplex broadcast transmission can cause periodic combining of relevant user specific information and conventional broadcast programming simultaneously at a plurality of subscriber stations, thereby integrating the broadcast information with each user's own information.
	Page 470, lines 9 - 12	At the station of Fig. 7 and 7F (which station is a subscriber station of the intermediate station of Fig. 6), in the fashions described above, apparatus is caused to receive the particular transmission of said program....
	Please note page 480, lines 14 - 17	In so doing, receiving said message causes matrix switch, 258, to interconnect the apparatus of said station in the fashion of Fig. 7E.
to explain a benefit	Page 488, lines 13 - 27 (Note: "at least one receiver specific benefit datum" is supported by the	Then microcomputer, 205, selects audio information that represents the percentage saving that said subscriber can save by buying an untrimmed pork belly unit in comparison to a trimmed pork belly unit at said market. Automatically,

	audio information of an announcer's voice saying "forty-six")	microcomputer, 205, ... computes information of .4609 (rounded), which is the decimal equivalent of the percentage saving; ... and selects the audio information of an announcer's voice saying "forty-six" from among the information of said file, D:DATA_OF.ITS; and places said information at audio RAM.
	Page 360, lines 34 - 35	... that is advertised in the conventional television programming of unit Q.
	Page 478, lines 23 - 26	Then said studio ceases transmitting "Exotic Meals of India" programming for a so-called "commercial break" and commences transmitting the conventional television video and audio information of program unit Q.
	Page 509, lines 31 - 34	In due course, said studio ceases transmitting programming of said program unit of Q and recommences transmitting programming of said "Exotic Meals of India" program.
of an offer made to a specific user through said video receiver station including:	Page 490, lines 11 - 23	Said studio transmits television picture information of the upper torso of a person and audio information of an announcer saying, "For a limited time only, Super Discount Supermarkets make this special offer to you. Super Discount Supermarkets will deliver to you, at cost, all the pork you need to entertain five hundred people for this low, low price ... " Said studio transmits television picture information of the right hand and arm of said person pointing moving to point at the upper left hand corner of the television screen.
	Page 491, lines 10 - 16	Automatically, microcomputer, 205, combines its specific video RAM binary image information of "$1,071.32" with its received conventional video information. And automatically $1,071.32 is displayed at the upper left hand corner of the picture screen of monitor, 202M, which is the corner to which the image of the person shown at said screen is pointing.
receiving at least one information transmission at said video receiver station, said at least one information transmission including video,	Page 478, lines 23-26	Then said studio ceases transmitting "Exotic Meals of India" programming for a so-called "commercial break" and commences transmitting the conventional television video and audio information of program unit Q.
	Page 490, lines 21-23	Said studio transmits television picture information of the right hand and arm of said person pointing moving to point at the upper left hand corner of the television screen.
	Page 469, line 35 - page 470, line 12	The program originating studio of a particular network transmits the programming transmission of a

		particular conventional television program on cooking techniques that is called "Exotic Meals of India." Said transmission is received at the intermediate transmission station of Fig. 6 and retransmitted immediately on the cable channel of modulator, 83. ... At the station of Fig. 7 and 7F (which station is a subscriber station of the intermediate station of Fig. 6), in the fashions described above, apparatus is caused to receive the particular transmission of said program that is retransmitted by the intermediate station of Fig. 6; ...
generally applicable information	Page 478, lines 23-26	Then said studio ceases transmitting "Exotic Meals of India" programming for a so-called "commercial break" and commences transmitting the conventional television video and audio information of program unit Q.
	Page 355, lines 5-8	...program unit Q is a spot commercial of a supermarket chain that describes discounts and so-called "cents-off coupon specials" at local supermarkets.
	Page 357, lines 23 – 35 (emphasis added) (Note: "generally applicable information" is supported by the sound information of an announcer's voice saying any of the words "forty-three," "forty-five," and "forty-six"; said information is contained in program unit Q)	Generally applicable information is specific. For example, the generally applicable information of the intermediate generation set of the programming of Q includes binary sound image information of a particular announcer's voice saying, "forty-three", "forty-five", *"forty-six"*, "low-salt Vindaloo", "Mild version Quick", and "Hot version Quick". And any given datum of generally applicable information may be specific information only of selected subscriber stations. Yet such information is generally applicable at any given transmission station because any given datum may be applicable at any or all of the subscriber stations of said transmission station.
	For example, Page 488, lines 21 - 26	... microcomputer, 205, ... selects the audio information of an announcer's voice saying "forty-six" from among the information of said file, D:DATA_OF.ITS; ...
	Page 482, line 27 - page 483, line 13 (Note: data-module-set message (#10) contains the information of DATA_OF.ITS, which is received at the receiver station) (emphasis added)—	Then said studio transmits said transmit-data-module- set message (#10), causing each intermediate transmission station, including the station of Fig. 6 and said second intermediate transmission station, to transmit its specific data-module-set message (#10), as described above. *Receiving the specific data-module-set message (#10)* of its intermediate transmission station causes each ultimate-receiver-station-to-record-one-instance-of-the *DATA_OF.ITS* information *in said message* in a particular file, named "DATA_OF.ITS" at so-called "RAM disk" memory of the microcomputer, 205, of said station. At the station of Figs. 7 and 7F, receiving the data-module-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which includes complete information of the

		aforementioned data file, DATA_OF.ITS, of said station). Executing said information causes microcomputer, 205, to place said complete information at a so-called "D:" RAM disk at the RAM of said microcomputer, 205, in a file entitled, at the directory of said disk, "DATA_OF.ITS".
	Page 384, lines 30-34 (Note: program unit Q contains data-module-set message (#10))	Receiving the information of the particular data-module-set message (#10) of the computer, 73, of its station causes each generator, 82, to embed said information in the normal transmission location of the programming of Q...
and a control signal;	For example, Page 482, lines 32-34	Receiving the specific data-module-set message (#10) of its intermediate transmission station causes each ultimate receiver station...
;	For example, Page 484, lines 2 - 9	... causing each intermediate transmission station, including the station of Fig. 6 and said second intermediate transmission station, to transmit its specific program-instruction-set message (#10), as described above. Receiving the specific program-instruction-set message (#10) of its intermediate transmission station causes each ultimate receiver station ...
	For example, Page 492, lines 1 - 12	Then said program originating studio embeds and transmits said 2nd commence-outputting message (#10). Said message consists of a "00" header; particular audio-overlay execution segment information that is addressed to URS microcomputers, 205, appropriate meter-monitor information including "program unit identification code" information and overlay number field information, and any required padding bits. And each intermediate transmission station (including the intermediate station of Fig. 6 and said second intermediate station) receives and retransmits said message. Receiving said 2nd commence-outputting message (#10) causes each subscriber station ...
	Page 59, lines 29 - 31	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
storing said generally applicable information	Page 483, lines 2 - 13 (emphasis added)	At the station of Figs. 7 and 7F, receiving the data-module-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected-at-decoder, 203, and-causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which includes complete information of the aforementioned data file, DATA_OF.ITS, of said station). Executing said information causes microcomputer, 205, to place said complete information at a so-called "D:" RAM disk at the RAM of said microcomputer, 205, in a file entitled, at the directory of said disk, "DATA_OF.ITS".

25

	Page 488, lines 21-26	microcomputer, 205, computes information of .4609 (rounded), which is the decimal equivalent of the percentage saving; determines that said information is greater than .4600 and less than .4700; and selects the audio information of an announcer's voice saying "forty-six" from among the information of said file, D:DATA_OF.ITS;
	Page 482, line 27 - Page 483, line 13	Then said studio transmits said transmit-data-module-set message (#10), causing each intermediate transmission station, including the station of Fig. 6 and said second intermediate transmission station, to transmit its specific data-module-set message (#10), as described above. Receiving the specific data-module-set message (#10) of its intermediate transmission station causes each ultimate receiver station to record one instance of the DATA_OF.ITS information in said message in a particular file, named "DATA_OF.ITS" at so-called "RAM disk" memory of the microcomputer, 205, of said station. At the station of Figs. 7 and 7F, receiving the data-module-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which includes complete information of the aforementioned data file, DATA_OF.ITS, of said station). Executing said information causes microcomputer, 205, to place said complete information at a so-called "D:" RAM disk at the RAM of said microcomputer, 205, in a file entitled, at the directory of said disk, "DATA_OF.ITS".
and said control signal at said video receiver station;	Page 483, lines 3-7	...receiving the data-module-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message...
	Page 484, lines 12 – 15	At the station of Figs. 7 and 7F, receiving the program-instruction-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute ...
	Page 492, lines 19 - 22	At the station of Fig. 7 and 7F, decoder, 203, detects the information of said message, and receiving said 2nd commence-outputting message (#10) causes decoder, 203, to execute....
	Page 480, lines 14 – 17 See Fig. 7E.	In so doing, receiving said message causes matrix switch, 258, to interconnect the apparatus of said station in the fashion of Fig. 7E.
	Page 34, lines 21 – 28 Fig. 2A is referenced in Fig. 7E.	Fig. 2A shows a TV signal decoder that detects signal information embedded in an inputted television frequency, renders said information into digital signals that subscriber station apparatus can process, identifies the

		particular apparatus to which said signals are addressed, and outputs said signals to said apparatus. Decoder, 203, in Fig. 1 is one such TV signal decoder; decoder, 30, in Fig. 2 is another.
	Page 36, lines 32 – 33 See Fig. 2A.	ˋ Each decoder is controlled by a controller, 39, 44, or 47, that has buffer, microprocessor, ROM, and RAM capacities.
	Page 156, line 33 – page 157, line 10. See Fig. 3A.	Fig. 3A shows one such preferred controller, 39. One aspect of the preferred embodiment of controller, 39, is a series of buffers and processors at which forward error correction, protocol conversion, and the invoking of controlled functions take place in series. Buffer, 39A, and processor, 39B, are the first buffer and processor of the series and perform the forward error correcting functions of controller, 39. Buffer, 39C, and processor, 39D, are the second buffer and processor and perform protocol conversion functions. Buffer, 39E, and control processor, 39J, are the third buffer and processor. All controlled functions invoked at controller, 39, by received SPAM signals are invoked at control processor, 39J.
outputting said video at a video monitor;	Page 490, lines 21-23	Said studio transmits television picture information of the right hand and arm of said person pointing moving to point at the upper left hand corner of the television screen.
	Page 491, lines 13-16	And automatically $1,071.32 is displayed at the upper left hand corner of the picture screen of monitor, 202M, which is the corner to which the image of the person shown at said screen is pointing.
	Page 470, lines 9 - 17	At the station of Fig. 7 and 7F (which station is a subscriber station of the intermediate station of Fig. 6), in the fashions described above, apparatus is caused to receive the particular transmission of said program that is retransmitted by the intermediate station of Fig. 6; to interconnect in such a way that the audio information received at a tuner, 215, and the video information received at said tuner, 215, are inputted separately, via matrix switch, 258, ...
	Page 479, line 25 - page 480, line 17	Automatically, controller, 20, causes matrix switch, 258, to configure its switches so as to transfer the video information ... to divider, 4, and to configure its switches so as to transfer the audio information ... to divider, 202D. In so doing, receiving said message causes the apparatus of said station to combine to the computer system of said program originating studio. ... Automatically, controller, 20, causes matrix switch, 258, to configure its switches so as to commence transferring audio information inputted from said microcomputer, 205, to monitor, 202M, and video information inputted from said microcomputer, 205,

27

		to monitor, 202M. In so doing, receiving said message causes matrix switch, 258, to interconnect the apparatus of said station in the fashion of Fig. 7E.
	For example, page 490, lines 21 - 23	Said studio transmits television picture information of the right hand and arm of said person pointing moving to point at the upper left hand corner of the television screen.
	For example, page 491, lines 13 - 16	And automatically ... is displayed at the upper left hand corner of the picture screen of monitor, 202M, which is the corner to which the image of the person shown at said screen is pointing.
selecting at least one receiver specific benefit datum to output from said generally applicable information	Page 488, lines 13 - 27 (Note: "at least one receiver specific benefit datum" is supported by the audio information of an announcer's voice saying "forty-six")	Then microcomputer, 205, selects audio information that represents the percentage saving that said subscriber can save by buying an untrimmed pork belly unit in comparison to a trimmed pork belly unit at said market. Automatically, microcomputer, 205, ... computes information of .4609 (rounded), which is the decimal equivalent of the percentage saving; ... and selects the audio information of an announcer's voice saying "forty-six" from among the information of said file, D:DATA_OF.ITS; and places said information at audio RAM.
	See also Page 488, line 27 - Page 489, line 13 (emphasis added)	In similar fashion, the microcomputer, 205, at the station of said second subscriber computes information of the amount that the subscriber of said station will save by buying an untrimmed pork belly ... computes information of .4562 [rounded], which is the decimal equivalent of the *percentage saving of said second subscriber*; determines that said information of .4562 is greater than .4500 and less than .4600; selects the aforementioned audio information of an announcer's voice saying *"forty-five"* from its file, D:DATA_OF.ITS; and places said information at said audio RAM.
in accordance with said control signal; and	Page 484, lines 12 - 18	At the station of Figs. 7 and 7F, receiving the program-instruction-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which is the program instruction set of Q.1 and is the output file, PROGRAM.EXE, of said station).
(	Page 485, lines 14 - 18	Under control of the instructions of said program instruction set of Q.1, the microcomputer, 205, of Figs. 7 and 7F generates image information of a first video overlay and generates selected information of subsequent overlays in the following fashion. Automatically...
	Page 486, lines 2-19	Then automatically, by comparing distance information, microcomputer, determines which market is closest to said subscriber station, that the distance between said subscriber

28

		station and said market is 4.3 miles, and that said subscriber station is southwest of said market. ... Then automatically ... microcomputer, 205, substitutes the value 4.3 for the variable X in the equation: $$Y = 1000.00 + 62.21875 + (2.117 * X)$$ computes the value of Y that is specific the the station of Figs. 7 and 7F to be: 1071.32 (rounded in a fashion well known in the art); and stores 1071.32 information at particular 2nd working memory of said microcomputer, 205.
	Page 488, lines 18-26	Automatically, microcomputer, 205, locates the aforementioned cost-of-a-trimmed-pork-belly-unit information in its file, D:DATA_OF.ITS. Then, by subtracting the information stored at said 2nd working memory of said microcomputer, 205, (which is 1071.32) from said cost-of-a- trimmed-pork-belly-unit information (which is 1987.25), microcomputer, 205, automatically computes said amount to be 915.93 and saves information of 915.93 at particular 3rd working memory of said microcomputer, 205. Then microcomputer, 205, selects audio information that represents the percentage saving that said subscriber can save by buying an untrimmed pork belly unit in comparison to a trimmed pork belly unit at said market. ... Then automatically, by dividing the information at said 3rd working memory (which is 915.93) by said cost-of-a-trimmed-pork-belly-unit information (which is 1987.25), microcomputer, 205, computes information of .4609 (rounded), which is the decimal equivalent of the percentage saving; determines that said information is greater than .4600 and less than .4700; and selects the audio information of an announcer's voice saying "forty-six" from among the information of said file, D:DATA_OF.ITS
outputting said selected at least one receiver specific benefit datum	Page 492, lines 1 - 30	Then said program originating studio embeds and transmits said 2nd commence-outputting message (#10). Said message consists of a "00" header; particular audio-overlay execution segment information that is addressed to URS microcomputers, 205, appropriate meter-monitor information including "program unit identification code" information and overlay number field information, and any required padding bits. And each intermediate transmission station (including the intermediate station of Fig. 6 and said second intermediate station) receives and retransmits said message. Receiving said 2nd commence-outputting message
		(#10) causes each subscriber station that has completed the generation of first audio image information at audio RAM to combine its specific image information to the conventional audio information transmitted by said studio and to emit sound of its combined specific audio information and its received conventional audio information at its specific monitor, 202M. At the station of Fig. 7 and 7F, decoder, 203, detects the information of said message, and receiving said 2nd commence-outputting message (#10) causes decoder, 203, to execute "SOUND ON" at the

		microcomputer, 205 of said station. Automatically, microcomputer, 205, transmits to monitor, 202M, via audio information transmission means, one instance of the information at the audio RAM of said microcomputer, 205, causing the emission of sound of said audio information, and the subscriber of said station can hear said announcer's voice saying: "forty-six".
	Page 491, lines 30-35	Said studio then transmits audio information of the announcer saying: "Super Discount Supermarkets makes this offer--today only--at cost, and this offer represents a saving to you of over."
	Page 493, lines 16-21	Then after an interval that is long enough for each subscriber station to emit sound of its specific audio RAM information, said studio transmits audio information of the announcer saying: "percent."
in a time of specific relevance	Page 27, lines 21 - 23	In addition, personalized programming is displayed only when it is of specific relevance to the conventional television programming of said combined medium.
	Page 491, lines 30 - 35	Said studio then transmits audio information of the announcer saying: "Super Discount Supermarkets makes this offer--today only--at cost, and this offer represents a saving to you of over."
	Page 492, lines 23 - 30	Automatically, microcomputer, 205, transmits to monitor, 202M, via audio information transmission means, one instance of the information at the audio RAM of said microcomputer, 205, causing the emission of sound of said audio information, and the subscriber of said station can hear said announcer's voice saying: "forty-six".
	Page 493, lines 16 - 21	Then after an interval that is long enough for each subscriber station to emit sound of its specific audio RAM information, said studio transmits audio information of the announcer saying: "percent."
during said outputting of said video	Page 490, lines 21-23	Said studio transmits television picture information of the right-hand-and-arm-of-said-person-pointing-moving-to-point at the upper left hand corner of the television screen.
	Page 494, lines 28-30	Meanwhile, as said studio continues to transmit television picture information of the person pointing to the upper left hand corner of the television screen...
	Page 491, lines 10 - 16	Automatically, microcomputer, 205, combines its specific video RAM binary image information of "$1,071.32" with its received conventional video information. And

30

		automatically $1,071.32 is displayed at the upper left hand corner of the picture screen of monitor, 202M, which is the corner to which the image of the person shown at said screen is pointing.
	For example, page 499, lines 16 - 19	(As said announcer makes this statement, the transmitted video image is of said person pointing to the upper left hand corner of the television screen where $1,071.32 continues to be displayed at the station of Figs. 7 and 7F ...
	Page 478, lines 25 - 26	... commences transmitting the conventional television video and audio information of program unit Q.
	Page 509, lines 31 - 32	... ceases transmitting programming of said program unit of Q ...
in response to at least a second control signal,	Page 492, lines 1 - 30	Then said program originating studio embeds and transmits said 2nd commence-outputting message (#10). Said message consists of a "00" header; particular audio-overlay execution segment information that is addressed to URS microcomputers, 205, appropriate meter-monitor information including "program unit identification code" information and overlay number field information, and any required padding bits. And each intermediate transmission station (including the intermediate station of Fig. 6 and said second intermediate station) receives and retransmits said message. Receiving said 2nd commence-outputting message (#10) causes each subscriber station that has completed the generation of first audio image information at audio RAM to combine its specific image information to the conventional audio information transmitted by said studio and to emit sound of its combined specific audio information and its received conventional audio information at its specific monitor, 202M. At the station of Fig. 7 and 7F, decoder, 203, detects the information of said message, and receiving said 2nd commence-outputting message (#10) causes decoder, 203, to execute "SOUND ON" at the microcomputer, 205 of said station. Automatically, microcomputer, 205, transmits to monitor, 202M, via audio information transmission means, one instance of the information at the audio RAM of said microcomputer, 205, causing the emission of sound of said audio information, and the subscriber of said station can hear said announcer's voice saying: "forty-six".
wherein said outputting of said video and said outputting of said selected at least one receiver specific benefit datum explain said benefit of said offer to said specific user of said video receiver	Page 490, lines 11 - 23	Said studio transmits television picture information of the upper torso of a person and audio information of an announcer saying, "For a limited time only, Super Discount Supermarkets make this special offer to you. Super Discount Supermarkets will deliver to you, at cost, all the pork you need to entertain five hundred people for this low, low price ... " Said studio transmits television picture

station.		information of the right hand and arm of said person pointing moving to point at the upper left hand corner of the television screen.
	Page 491, lines 13-16	And automatically $1,071.32 is displayed at the upper left hand corner of the picture screen of monitor, 202M,
	Page 491, lines 30 - 35	Said studio then transmits audio information of the announcer saying: "Super Discount Supermarkets makes this offer--today only--at cost, and this offer represents a saving to you of over."
	Page 492, lines 23 - 30	Automatically, microcomputer, 205, transmits to monitor, 202M, via audio information transmission means, one instance of the information at the audio RAM of said microcomputer, 205, causing the emission of sound of said audio information, and the subscriber of said station can hear said announcer's voice saying: "forty-six".
	Page 493, lines 16 - 21	Then after an interval that is long enough for each subscriber station to emit sound of its specific audio RAM information, said studio transmits audio information of the announcer saying: "percent."
	Page 535, lines 34 - 35	... businessmen wish to advertise ... the benefits of their goods and ... services ...
	Page 552, lines 20 - 30 Example #10 extends from page 374 to page 390 and from page 469 to page 516.	Automatically, in the fashion of example #10, the display and output apparatus of each ... station commences displaying and outputting generally applicable television picture image, sound, and print information of ... combined periodically with related locally generated specific ... information of its specific ... Automatically, ... information ... of each ... is explained in the outputted the generally applicable programming and is displayed, emitted in sound, and printed at the station of each ...